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**OIL POLICY IN RUSSIA TOWARD SELECTED NEW
INDEPENDENT STATES.**

by

John J. Stevens III

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Thesis Advisor:
Second Reader:

Misha Tsypkin
Robert Looney

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Free market world oil majors and their counterparts, both in Russia and the New Independent States, have developed a number of significant alliances that have resulted in several potentially lucrative joint ventures. The coercive tactics that the Russian government resorts to in an effort to prevent its former republics from efficiently developing their reserves, and the position the United States must take to ensure these efforts are stifled will be addressed.

A sound grasp of these critical energy issues will result in the development of these vast resources in a manner favorable to U.S. national interests. This will provide security for our strategic reserves and offer a viable alternative to the Persian Gulf resources far into the twenty-first century.

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**OIL POLICY IN RUSSIA TOWARD SELECTED NEW
INDEPENDENT STATES.**

John J. Stevens III
Lieutenant Commander, United States Navy
B.S., University of the State of New York, 1981

Submitted in partial fulfillment of the
requirements for the degree of

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Following the breakdown of the Soviet Union, one of the world's strongest oil producing industries was divided into a few major oil provinces. The Russian energy industry has been adversely affected by this process. The process of change to the former Soviet oil industry including: Russian efforts to maintain control of its former resources, NIS resource development, Western capital investment, and environmental issues in the major oil provinces of the former Soviet Union, is the main focus of this thesis.

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A sound grasp of these critical energy issues by American policy makers will result in the development of these vast resources in a manner favorable to U.S. national interests. This will provide security for our strategic reserves and offer a viable alternative to the Persian Gulf resources far into the twenty-first century.

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I. INTRODUCTION

For more than a century the lure of Russian oil has attracted Western petroleum manufacturers. "The Tsar, after 1873 had allowed foreign interests to prospect for oil in the Caucasus, a source that seemed more extensive than Pennsylvania's one [productive field]..."¹ By the end of 1893 regular shipments of Russian oil were consigned by the Shell Oil Company. Thus, the history of western business activity with respect to Russian oil is long-standing. Historically, foreigners have been able to buy oil from Russia at a better price than from the Middle East. This is, arguably, the main reason why the world's oil majors are competing for domination of the Russian, and former Soviet republic oil industry. Additionally, the potential for an upsurge in oil prices caused by the insatiable American market and the Third World's newly developed appetite for petroleum, makes the vast undeveloped resources of the former Soviet empire all the more attractive. According to *Fortune* magazine's Richard Teitelbaum, by the year 2000, demand will have soared from today's 70 million barrels per day to more than 77 million, enough to raise the price to as much as \$45 per barrel. By the year 2010 demand may be 95 million barrels, which could push even higher as oil producers scramble to feed ever busier gas pumps around the globe.² Teitelbaum continues,

¹Anthony Simpson, *Seven Sisters* (London: Coronet Books, Hodder and Stoughton, 1988), p.77.

² Richard Teitelbaum, "Your Last Big Play in Oil," *Fortune*, October 1995 Vol. 21, 90.

Along with this increase in price and demand will come a serious strain on the traditional system of supply. Even if it opens all the faucets, the 12-nation cartel OPEC has less oil to spare than many think. Some big non-OPEC reserves, including Prudhoe Bay, are declining, and others like North Sea, soon will begin to sputter as well....³

It begins to become patently evident how important the new economic opportunities offered by the development and exploitation of Siberian and Central Asian petroleum resources are to the world energy market. In Russia, the state owned company Gazprom controls about one-quarter of the world's known gas reserves.⁴ Russia and the former Soviet republics may offer the last great domain of untapped petroleum on earth, and have the potential to significantly extend the useful life of fossil fuel related technologies. Huge investments have already been made by British Petroleum, Statoil, Shell International, Exxon, Chevron, and Mobil. Many other companies (including Middle Eastern enterprises), look east to the Caspian Sea and the Russian northwest oil region.

This thesis will seek to identify and explain the significant political and economic issues spawned by competition for control of the vast, and primarily undeveloped, energy industry throughout Russia and the former Soviet republics. These issues include the correlation between the success of democratic systems and free market economies, and the increased potential for failure of these systems within the former Soviet empire without the direct involvement of the United States' government and private industry as preceptors

³Richard Teitelbaum, "Your Last Big Play in Oil," *Fortune*, October 1995 Vol. 21, 90.

⁴Survey "Russia's Emerging Market", *The Economist*, April 8, 1995.

and models of the quintessential capitalistic milieu.

Additionally, based on Russia's coercive efforts to maintain at least partial control of her former energy assets, I will endeavor to show that without straightforward intervention by the West to ensure the success of these infant free market economies and political systems, there exists the possibility of reunification of at least some of the former Soviet republics with Russia into a smaller version of the Soviet empire.

II. RUSSIAN AND NEW INDEPENDENT STATES' ENERGY RESOURCES AND DEVELOPMENT

A. THE RESOURCES: POTENTIAL AND PROVEN.

Russia (particularly Siberia), Kazakhstan, and Azerbaijan are regions with substantial petroleum resources and the main areas suitable for analysis. In a very short period of time, the free market world oil powers and their counterparts in the Former Soviet republics have developed a number of significant alliances. As background for total understanding of the huge economic and political influence energy resources offer in the former Soviet Union it is imperative to provide a detailed account of the process that led to investment activities in the Caspian Region. This will include activities in Kazakhstan, Azerbaijan, and the northwestern part of Russia, where great amounts of crude oil and gas have recently been discovered. Consequently, I will discuss the exceedingly promising Azeri, Chirag, and Guneshli Azerbaijani oil regions, the Ardalin, Priobskoye and Salym oil fields in Russia, and projects such as Tengiz and Karachaganak in Kazakhstan.

1. Russia

Russia is vastly important to world's oil markets. It contains the world's eighth largest oil reserves. Russia also exports a significant amount of oil and natural gas to Europe and is the world's second largest energy consumer.

Russia has proven oil reserves of at least 50 billion barrels, although the country's actual resources may be substantially higher. Former Soviet Union oil production peaked

at 12.5 million barrels per day in 1988. However, Russian output has declined sharply since then, reaching 6.1 million in 1995. The decline in Russian oil production appears to be leveling-off, with output falling by only five percent in 1995, as compared to 15 percent in 1994. Oil output is expected to remain at this level for the next two years, before rising gradually after 1997.

Historically, most of the former Soviet Union's oil production came from Azerbaijan's Caspian region, which accounted for 70 percent of output in 1941. Between the 1930s and 1950s, the focus of oil field development shifted to Russia's Volga-Urals region, where the supergiant Romashkino and Arlan fields boosted regional output to a peak of 4.5 million in 1975. In the 1970s, supergiant West Siberian fields, such as Samotlor, Fedorovo, and Mamontovo compensated for natural production declines in the Volga-Urals. West Siberia now accounts for about two-thirds of Russian oil production, with fields in the Volga-Urals region producing less than one-quarter of the country's total output. Russia's Arctic region is a far smaller producer, but is the location of many Western joint ventures. Most new development activity today is focused in western Siberia's Tyumen region, where many smaller fields are slated for development over the next several years. Sakhalin Island in Russia's Far East is another area witnessing new developments. The dramatic production declines experienced since 1988 resulted from several factors, including natural reservoir depletion, insufficient investment, and poor technical management (such as the use of premature water injection). In recent years, high

production quota levels and extensive waterflooding operations have led to premature output declines in many of Russia's large fields. Attempts to bring smaller, widely-dispersed fields onstream to compensate for these production losses have resulted in strains on infrastructure and low production rates per well. As shown in Table 1., In early 1995, almost 40,000 wells, about a third of Russia's total wells, were idle.

Company	Jan 01, '95		Jul 01, '95		Oct 01, '95	
	Idle Wells	% of Total Wells	Idle Wells	% of Total Wells	Idle Wells	% of Total Wells
Arktikmorneftegazrazvedka	6	19.4%	6	16.7%	9	24.3%
Bashneft	2,462	13.8%	2,872	16.3%	2,844	16.1%
Ingushneftegazkhimprom	531	85.5%	446	87.6%	405	81.8%
KomiTEK	778	39.5%	706	35.8%	831	42.0%
Lukoil	6,042	25.7%	5,206	23.3%	4,661	20.9%
ONAKO-Orenburgneft	945	34.6%	1,026	37.2%	1,066	38.3%
Rosneft	3,009	31.8%	3,301	34.2%	2,893	29.2%
SIBNEFT	2,493	37.6%	2,340	33.5%	2,427	34.4%
SIDANCO	3,863	31.6%	3,425	27.7%	3,644	29.0%
Slavneft	702	20.9%	897	26.5%	746	21.9%
Surgutneftegaz	2,670	20.0%	2,343	17.2%	2,446	18.1%
Tatneft	3,631	19.3%	3,485	18.3%	4,080	20.1%
Tyumen Oil Co.	4,431	40.2%	4,035	35.9%	4,565	38.4%
Vostochnaya (Eastern) Oil Co.	1,632	40.4%	1,498	37.1%	1,448	35.6%
YUKOS	5,927	36.2%	5,675	34.4%	5,947	35.8%
YUNKO (Chechnia)	812	100.0%	771	96.5%	746	90.4%
Total	39,934	28.0%	38,032	26.6%	38,758	26.7%

Source: RF Ministry of Fuel and Energy

Table 1. Idle Oil Wells of Selected Russian Companies

In 1994, upstream investment fell by almost 30 percent, to \$2.3 billion, and exploratory and development drilling fell by about 40 percent from the previous year. Russian oil producers are facing a continuing financial crisis because of delinquent payments from consumers. Large arrears have reduced the availability of investment capital and, among other reasons, have prompted a shift to hard currency-generating oil exports outside the FSU. A comparison of FSU/non-FSU exports is shown in Figure 3. Most of Russia's non-FSU oil exports are destined for major European oil customers, including the United Kingdom, France, Italy, Germany, and Spain. Non-FSU exports rose from 51 percent of total exports in 1991 to 71 percent in 1993 and 76 percent in 1994. In

1995, non-FSU oil exports were estimated at 2.4 million barrels per day and are expected to remain at that level in 1996. In contrast, 1995 Russian oil exports within the FSU fell by 100,000 barrels per day to 700,000 barrels per day.

Lukoil, is the main Russian state-owned oil company. Its forecast output for 1996 is estimated to be over 53 million tons.⁵ It is actively seeking foreign investment for its domestic development projects and expanding its operations throughout Europe and beyond. Many Western operators believe if they do not have a foot in Russia's door in the near future, they will be missing out on one of the industry's greatest investment opportunities for the twenty-first century. This private company is trying to integrate all stages of the business from exploration to running gasoline stations. Lukoil sold a 15% share of the company to foreign investors in order to raise \$3 billion to invest in development of new fields. This investment and development increased the value of the company 82% to \$20 billion. In the meantime, Lukoil has (through manipulation of the Russian owned pipeline network) put pressure on the State Oil Company of Azerbaijan (SOCAR) to include it in the development of the three billion barrel Kapaz field a few miles to the east of its Guneshli project.

Major energy initiatives between Russian and Western companies are expected to result in the development of some of the world's largest oil and gas reserves. Projects such as development of the Timan Pechora Varandey Region, the Polar Lights Joint Venture

⁵U.S. DOE, Energy Information Administration Statistics, Country Analysis Report-Russia.

(JV), and the North Priobskoye and Salym fields in the Western Siberia Basin are breaking new ground.

a. Timan Pechora

A consortium, whose shareholders include Texaco (30%), Exxon (30%), Amoco (20%), and Norsk Hydro (20%), is currently developing reserves of over two billion barrels in Timan-Pechora's Varandey region near the Barents Sea coast (Figure 1.). Under the development plan, investment of \$45 billion is estimated over the projected 50-year life of the 11 area fields. In mid-1995, the consortium agreed to allow Rosneft, Gazprom, Lukoil, and Yukos to acquire a 20 percent stake in the project. Plans also could include a scheme to transport crude oil to ice-breaking tankers via an underwater Arctic Ocean pipeline, which would bypass heavily-utilized sections of the Transneft pipeline network. However, further movement on this project has been stalled for legal reasons. The development of such a project would eliminate a lucrative source of revenue for the Russian government from pipeline use tariffs, and avoid certain export tariffs by creating a tanker terminal outside the twelve mile limit.

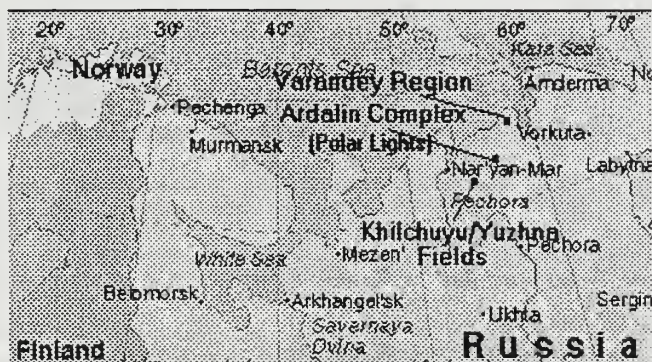


Figure 1. Timan Pechora Projects

On 27 March 1996, the Russian oil company Evikhon and Royal Dutch (Shell's Russian subsidiary) agreed to set up a joint venture to exploit the Salym oil fields in the Western Siberia Basin (Figure 2.). The Salym fields in Tyumen Oblast, have recoverable oil reserves of 139 million metric tons, and are expected to yield six million metric tons annually by the year 2003. Over the next 25 years, up to \$11 billion could be invested in the project.



Figure 2. Western Siberia Basin Projects

Evikhon was created to develop the Salym fields in 1992, since that time Evikhon and Shell have already spent \$100 million on exploratory work in Salym. Additionally, Amoco has a preliminary deal with Yuganskneftegaz and Yugraneft to develop the four billion barrel North Priobskoye field. Output is expected to peak at 500,000 barrels per day with the use of horizontal drilling. Other regional development could be spurred by an upcoming competitive tender (bid for contract rights) by the

Yamal-Nenets regional government, which plans to auction fields containing 850 million barrels of oil reserves.

b. Polar Lights Joint Venture (JV)

A milestone in the industry's history was reached when first oil flowed from the Ardalin field in Russia. Ardalin was developed by a US and Russian joint venture dubbed "Polar Lights"; proving Western and Russian joint ventures can successfully exploit and export the nation's hydrocarbons. Six years ago Conoco started discussions with a number of oil and gas associations in the former Soviet Union. In December 1991 Conoco and Arkhangelskgeologia (AG) formed the Polar Lights Joint Venture to further examine and develop oil fields that AG had discovered in Timan Pechora. Polar Lights is a unique Russian-American JV that differs significantly from other oil ventures being set up in Russia today. It was one of the first companies to bring major Western finances to the Russian oil industry and the JV represents the single largest investment from the West in Russia's petroleum sector to date. By the terms of the JV both partners share equally in both investment costs and the resulting profits. The area licensed to Polar Lights is in the Nenets Autonomous Okrug of the Timan Pechora region. It is located within the Arctic Circle, some 125 km south of the Barents Sea. The Joint Venture area contains four identified oil fields that are known as the Ardalin Complex (See Figure 1.)-- named after the largest of the fields, Ardalin, which contains over 110 million barrels of oil reserves. It produces from a ten square km reservoir located at a depth of 3,200 m. The three satellite

fields, Oshkotin, Kolva and Dysushev that contain estimated combined recoverable reserves of 20 million barrels, are now being evaluated for development. Development of the Ardalin field involves the drilling of 24 new production wells (11 oil producers and 13 aquifers), and reworking three existing wells. Conoco expects the developmental drilling program to take three years to complete, with each new well taking 90-120 days to drill and complete.

Polar Lights is currently the most successful oil producing Joint Venture in Russia. Ardalin output is expected to peak at 25,000 barrels per day in 1996, and by 1997 the Oshkotin, Kolva, and Dyusushev satellite fields are scheduled to come on-line. Conoco currently has invested over \$375 million and plans to spend up to two billion dollars in regional field development.

c. West Siberia: The Fields of the Future

Conoco and AG are considering the possible future development of other oil fields in the northern Timan Pechora region (see Figure 1.). These fields, Khilchuyu, Yuzhno Khilchuyu, Yareiyu and Inzerei, contain more than one billion barrels of recoverable oil reserves. Initial investment to develop the Yuzhno Khilchuyu field, including construction of the associated infrastructure, could reach almost three billion dollars. The partners and several other companies are also considering the possibility of building an offtake facility in the Barents Sea. A terminal there would provide Russia with critical infrastructure in an area that has no export facilities. An additional investment of

two billion dollars would be needed to initiate this project. If these investments are made, the local and federal governments could receive up to \$6.8 billion from taxes, royalties and other related income. Conoco will contribute more than \$1.37 million to the Nenets administration over the next five years. It has also initiated discussions with the US Agency for International Development in hopes of securing further support for communities in Timan Pechora.⁶

d. Environmental Issues

The environment at these sites is extremely fragile. Located in the Arctic tundra, some one thousand miles north and east of Moscow, winter temperatures at these sites often fall as low as -60°C. Harsh winds are frequent and daylight hours are very short. However, in the summer months the tundra becomes very marshy and it is difficult for heavy equipment to negotiate the terrain. Special considerations are necessary to operate in these conditions without damaging the fragile environment. Drilling rigs, accommodation modules, and support facilities were installed on raised earthen pads several meters thick to protect the tundra from heat or damage from the facility's weight. Short infield roads had to be built to connect these pads during operations, and all the construction work had to be carried out during the winter months when snow and ice protected the tundra.

At Polar Lights, drilling rigs and new pipelines for the fields were modified

⁶*Oil & Gas Journal*, Vol. 94, Issue 7, February 12, 1996.

to conform with new required safety, operational, and environmental standards. Special emphasis was placed on equipment that gives the operator greater ability to control the fluids and muds used "down hole." This improves the quality of the hole drilled, thereby increasing production capability.

A 65 km insulated oil pipeline was built to transport the Ardalin crude connecting the complex with the Komineft pipeline at the Kharyaga field that is located southwest, outside the JV area. Current capacity of the pipeline is 30,000 barrels per day with the design capacity for expansion to 80,000 barrels per day. The 12 inch diameter pipeline was built above ground on special supports to protect the Arctic tundra. As Ardalin lies 50 km away from the nearest oil processing facility, Polar Lights built its own oil treatment facility capable of handling up to 25,000 barrels per day. A permanent complex including accommodation modules, power generation, telecommunications, drinking water and sewerage facilities has been built to allow year around operations.

2. Kazakhstan

Many of the world's traditional hydrocarbon producing areas are fast maturing and will soon begin their inevitable declines. This pessimistic yet realistic outlook has fostered a constant search for new reserves throughout the world.⁷ Kazakhstan, with its extensive energy resources, has become one of the key areas for future projects. Current production is mainly from on-shore facilities, but there exists significant offshore potential that has

⁷Mark Thomas, "Cashing On In Kazakhstan", *Euroil*, September, 1995.

encouraged early involvement by several major international oil companies.

Output from the former Soviet republics is expected to increase by just over one million barrels per day in the next five years, with about half of the increase from Russia and half from the other republics, notably Kazakhstan.⁸ Moreover, aggregate non-OPEC supply is projected to increase from an estimated 42.3 million barrels per day in 1995 to 47.8 million barrels per day in the year 2000.

a. Tengiz and Korolev Fields

Investment and speculation in Kazakhstan moved along at a brisk pace in recent years as demonstrated by projects such as Tengiz and Karachaganak, which appeared to be progressing well. However, during 1995 they both had more than their fair share of problems. The main issue that dominated last years' controversy was the pipelines' export route. Negotiations between Chevron and Oman over the route of a \$1.2 billion pipeline, designed to transport oil from projects including the giant 25 billion barrel Tengiz and Korolev fields, lead to a major confrontation between the two partners. Not surprisingly, the source of the friction was money. Specifically, it was the amounts that each party felt the other should pay towards the project. This ended with Richard Matzke, President of Chevron Overseas Petroleum, saying bluntly that it was clearly time for Oman to back off or back out and adding that Chevron wanted a pipeline that makes economic sense.⁹ The debate lead to a dramatic slowdown in project spending (Chevron

⁸David H. Knapp, *Oil & Gas Journal*, vol. 93, Issue 52, News Special Report, December 25, 1995.

⁹Mark Thomas, "Cashing On In Kazakhstan", *Euroil*, September, 1995.

rebudgeted for around half of what was originally planned). The issue was not helped by Russia's demand for tariffs associated with access to its export pipelines for Tengiz oil. In spite of these setbacks, Chevron hopes to eventually produce around 700,000 barrels per day from the field by the year 2010. This number includes production from the neighboring one billion barrel Korolev field that is scheduled to begin production around the year 2000. According to the *Wall Street Journal*, Chevron explained cutting the Tengiz's budget in 1995 from \$500 million to \$50 million as the result of postponed construction of the Tengiz refinery until 1996, and limitations imposed by Russia for oil transportation. Tengizchevroil's had forced it to constrain its oil extraction quota of one million metric tons of oil and gas a year in the Tengiz oil fields due to a lack of other pipelines to export oil. In recent months the situation has improved. The problem was, at least temporarily, resolved early in 1996. ITAR-TASS reported on 17 April that Tengizchevroil will now be able to export a significantly greater amount of oil through Russian territory every year following an agreement reached between the relevant parties in Russia and Kazakhstan. Kazakhstan will now be able to export about four to five metric tons of oil and gas condensates a year through the Atyrau-Samara pipeline and through the Russian oil company Transneft's system to Europe. As a result, Kazakhstan's oil output increased by 23% in the first quarter of this year. This will bring in an extra \$450 million. Further, the Kazakhstani government has sold half of its 50% share in

Tengizchevroil to Mobil, whereas Chevron retains its 50% share.¹⁰ This could have a major impact on the expedition of talks and the resolution of the pipeline route.

b. Offshore Caspian Fields

The major development in the offshore arena was the formation of the KazakhstanCaspShelf consortium, which is made up of the state oil firm KCS, Agip S.P.A., British Gas, the BP/Statoil Alliance, Mobil, Shell and Total. A Pre-production program was carried out last year to set the parameters for this year's shoot, while another survey of 25,000 square km of the deepwater southern section of the Caspian is also now under way. Offshore rewards could be significant. It is predicted by Kazakhstan's energy department that it will locate between 40 billion and 100 billion barrels of crude oil and 1.5 trillion cubic feet of natural gas.

In Kazakhstan there are five sedimentary basins with proven oil and gas indicators: the deposits at Precaspian, South Mangyshlak, North Ustyurk-Buzashki, Turgai and Chu-Sarusu. All of the republic's major proven and probable reserves are concentrated in these basins. There are also nine other sedimentary basins in the country that show promise for oil and gas deposits, and are estimated to contain up to an additional one billion tons. Although these are not confirmed reserves, there seems to be a general "gut feeling" that this sector is viable and provide strong incentives for Western investment.¹¹

¹⁰*The Financial Times*, 18 April 1996.

¹¹As a result of seismic explorations of the Caspian Sea continental shelf conducted by the Caspian Sea

The most significant potential for actual exploitation of Kazakh oil is offshore in the North Caspian. Offshore technology in Kazakhstan is limited, and based on their experiences in the Gulf of Mexico and the North Sea respectively, U.S., British, and Norwegian investors have the clear advantage in this market. The decline in production from established fields is estimated to begin around 2010-2012. Development of offshore fields in West Kazakhstan could more than triple the industry's longevity. This would allow Kazakhstan to boost current levels of oil production substantially and use oil revenues to improve aging infrastructures and technologies. Provided the CPC's pipeline project is implemented, Kazakhstani export capacity is estimated to increase from current levels of 0.42 million barrels per day to 1.2 million barrels per day in 1999, and to 1.9 million barrels per day in 2005.¹²

3. Azerbaijan

Currently, major Azeri oil fields are being developed with direct participation of Western oil companies. The recently inaugurated project in the Azeri, Chirag, and Guneshli Azerbaijani oil regions, with the profile of \$7.4 billion,¹³ deserves special attention.

Consortium, Kazakhstani authorities estimate crude oil reserves of 10 billion metric tons and 2 trillion cubic meters of natural gas, Reuters reported on 26 June. If confirmed, these offshore oil reserves would be 10 times bigger than those of its onshore Tengiz oilfield and exceed Russia's entire oil reserves of 6.7 billion tons, Reuters added, citing British Petroleum's (BP) Statistical Review. However, Caspian Sea Consortium members, such as British Gas, BP, Agip, Mobil, Shell and others say that as no drilling has taken place yet, the estimated oil deposits are unlikely to exceed 4 billion tons (data reported in OMRI Daily Digest: August 1996).

¹²Mark Thomas, "Cashing On In Kazakhstan", *Euroil*, September, 1995.

¹³Mark Thomas, *Euroil*, "Breaking Into Baku", vol. 6 issue 9, May 1995.

a. *Azeri, Chirag, and Guneshli Oil Regions*

All the affiliate nations involved in the development of the fields have approached the project optimistically (despite its highly speculative nature). There are many, and in some cases extremely significant, questions that surround the project. Proceeding with plans to develop petroleum resources where the export route out of the region is in question could be seen as unjustifiable. However, the potential return on investment from participation in this and other projects in the former Soviet republics is exceptional and thus perceived as worth the risk. It is estimated that well over five billion dollars will be spent on capital investment in offshore field development in the former Soviet Union by the turn of the century.¹⁴ Understandably, Western investors are anxious to see their first effort come on-line successfully, and there is no reason to think it shouldn't go well. The technology required to exploit the four billion barrels of oil concentrated in three fields has been proved reliable. Some existing platforms will be upgraded, and some new ones will be constructed at Baku's fabrication yards in the Azeri capital.¹⁵ The structures will be simple and lightweight in design. Since the Caspian Sea is shallow and the weather is comparatively benign there is no requirement to duplicate the expensive, heavier duty, North Sea typical installations. Horizontal drilling -- now a standard and highly economical technology -- is likely to be used to improve production from the reservoirs. Existing vertical wells on the Guneshli field, for example, have

¹⁴ Ibid.

¹⁵ Mark Thomas, *Euroil*, "Breaking Into Baku", vol. 6 issue 9, May 1995.

produced, according to one project source, at 400 barrels per day, whereas horizontal wells are expected to boost this figure to around the 4000-5000 barrels per day mark. Additionally, the existing vertical wells could still be utilized with the proper bottom hole equipment to deal with problems such as sand migration common in Azerbaijan.¹⁶

A 30-month minimum work program was agreed upon by the Azerbaijani State Oil Company (SOCAR) (which currently owns a 20% share of the deal), and the consortium (AMOCO-17.01%, BP-17.1267%, Statoil-8.5633%, Delta Nimir Khazar-1.68%, McDermott-2.45%, Pennzoil-9.8175%, Ramco-2.0825%, TPAO-1.75%, UNOCAL-9.52%, and Lukoil-10%) which owns the remaining 80%. The original goal of the \$150 million first stage of the operation was to begin production within 18 months. This meant the development's operating contractor -- the Azerbaijan International Operating Company (AIOC) -- was given just six months (until June of 1995) to prepare before making a decision on whether to proceed. Two steering committee meetings are held each year to approve the project's budget and work program, which has so far included activities such as rig, vessel, and platform inspections, and a seabed survey. Specifically, a 3D seismic shoot over the whole of the contract area was started in the summer of 1995 using vessels already based in the Caspian, and a base line environmental study was carried out in conjunction with Azerbaijan's State Ecology Committee, so that project participants have a reference from which to monitor conditions in the contract area

¹⁶Ibid.

during construction and initial production. Furthermore, a survey of the Chirag I platform, as well as the undersea pipelines to shore, was successfully conducted by Brown & Root Contracting to verify hardware integrity. An estimated twelve wells are likely to be drilled on Chirag. The eventual full scale development of the fields will involve around twelve drilling platforms and two processing platforms.¹⁷ Once all three fields are developed, production should peak, and level off, at a figure of around 700,000 barrels per day around the year 2010, but a new main pipeline will be needed once production reaches the 200,000-300,000 barrels per day figure. Azerbaijan International Operating Company (AIOC) stresses that no decision on a main pipeline export route (or routes) have been made, and they will only be considered once the initial production facility is successfully completed and running.¹⁸

In some previous energy industry operations in the former Soviet Union, corruption has been rampant causing project delays, and loss of NIS credibility among western industry representatives. The Chirag project is under such intense international scrutiny, that a great deal of care has been taken to bring the contractor bidding procedures for upcoming work in line with the West. AIOC carries out all the contract qualifications and proposes bidder lists. All bidder lists for contracts valued at over \$15.5 million must be agreed upon by all the project partners. According to an AIOC representative, "Every [contract] is competitively bid and our aim is to build up a broad

¹⁷Mark Thomas, *Euroil*, MAI Report, "Breaking Into Baku", Vol. 6 Iss. 9, May, 1995.

¹⁸*Ibid.*

contractor base during the early oil phase, for [use] when we come into full field development."¹⁹

The interest in this region is extremely intense due to the potential resources that lie outside the shallow water areas. Azerbaijan's sector alone holds a predicted 40 billion barrels, while Kazakhstan's estimates for its sector go as high as 100 billion barrels. Azerbaijan is obviously eager to get Western companies involved because of the deepwater technology at their disposal and the experience gained from producing in regions such as the North Sea and Gulf of Mexico. Tension leg platforms, shipshape floating production systems and other floating production concepts are all being considered for future projects. Little is known about the deepwater section of the South Caspian Basin but a recent seismic study by joint team from SOCAR and Chevron may provide information about both the tectonic and stratigraphic development of the South Caspian. Stacked submarine fans have been mapped in the central portion of the area, and seismic amplitude and interval velocity analyses suggest that the fans are thick enough and contain sufficient sand to be potential exploration targets.²⁰

¹⁹Mark Thomas, *Euroil*, "Breaking Into Baku", vol. 6 issue 9, May 1995.

²⁰*Ibid.*

B. THE RESOURCES: UNDEVELOPED, DISPUTED, AND UNEXPLORED GEOGRAPHICAL AREAS

1. The Caspian Oil Resources

The Caspian region contains four major oil and gas bearing basins: The South Caspian Basin - where since 1870 more than 14 billion barrels of oil have been found; The Terek Caspian and Indol Kuban Basins -- which are estimated to contain original recoverable reserves of seven billion barrels of oil; The Ust Yurt/Aral and Mangyshlak Basins -- which contain approximately 6.5 billion barrels of oil based on original reserves estimates; and The North Caspian Basin - where it is estimated that there exist original reserve accumulations of between 14-21 billion barrels of oil.

A major study of the Caspian region has estimated that total capital expenditure over the next 15 years could reach around \$41.9 billion. MAI Consultants, in a study carried out in association with Azerbaijan's State Oil Company (SOCAR), predicts that \$17.4 billion will be invested in offshore facilities and \$24.5 billion in onshore production, including \$13.7 billion on pipeline infrastructure. Annual capital expenditure is expected to peak at around \$4.6 billion.²¹

As a comparison, expenditure in the UK sector of the North Sea is forecast to amount to \$4.3 billion in two years time (although exploration and appraisal is excluded from this figure). Additionally the report states:

²¹Mark Thomas, MAI Report, "Breaking Into Baku", *Euroil*, Vol. 6 Iss. 9, May, 1995.

The Caspian region ranks as one of the top 10 petroleum provinces in the world. As many of the traditional areas reflect maturation of assets and declining production the region, with its close links to Russian industry now open, represents an important new opportunity for manufacturers and suppliers of oil-field equipment and services.²²

Overall remaining reserves in the region, according to the report, are estimated at 32 billion barrels of oil. The Caspian region is almost uniquely characterized by the existence of large unexploited offshore hydrocarbon accumulations in a mature oil and gas province, together with extensive mature assets.

In the Kazakh area in particular, most opportunities arise out of new project developments, rather than those like the giant Tengiz and Karachaganak fields, which are based on expansion of earlier Russian projects. Economic development of these much smaller fields producing around 10,000 barrels per day is proving possible and lucrative, as in the case of the Armenia field. Overall, the petroleum potential of the region is huge, with the presence of a large number of un-drilled structures being well documented. It is estimated that unrisks reserves of between 10-20 billion barrels exist in the North Caspian with perhaps as much as 20 billion barrels in the South Caspian.²³

Armed with the security of the revenue from established energy industries, Russia and Iran continue to press for cooperative, multinational development of Caspian Sea oil and gas. Conversely, Azerbaijan has no alternative for revenue, and isn't waiting on a regional solution. In a unilateral effort to step up development of the Caspian, on March 1,

²²Mark Thomas, *Euroil*, "Breaking Into Baku", vol. 6 issue 9, May 1995.

²³*Ibid.*

1996 the Azeri parliament ratified a November 1995 production sharing agreement (PSA) between state owned SOCAR and an international group covering appraisal and development of the offshore Karabakh project.

Karabakh, with reserves estimated at one billion barrels of oil, is located in 600 feet of water in the Azeri Caspian, 12 miles north of the Azeri-Chirag-Guneshli tract where Azerbaijan International Operating Co. has proposed a \$7.95 billion development. Karabakh partners are Agip, Russia's Lukoil, Pennzoil, and SOCAR. Karabakh PSA, which includes a three year drilling and seismic commitment and 25 year production period, plus exploration and production options, took effect February 23, 1996.²⁴

C. OUTLOOK FOR WESTERN INVESTMENT

In the future, investment opportunities for the West in the former Soviet Union will involve the simultaneous redevelopment and rehabilitation of existing facilities and infrastructure, the development of new projects associated with existing or new fields, and continuous exploration and appraisal activity. The region therefore has the potential to offer an extensive and broad-based opportunity for the manufacturing, service, and supply sector covering all aspects of oil and gas exploration, development, and operation.²⁵

²⁴*Oil and Gas Journal Newsletter*, 11 March 1996.

²⁵*Ibid.*

1. The Caspian Region

The demand potential for the service and supply sector in the Caspian regional market is also addressed in the MAI report, which compares it with the industrial resource base supporting United Kingdom Caspian Sea activity. As long as the market for the service and supply sector continues to be huge, sourcing will be done on a fully international basis, and competition will be intense. Suppliers will need to be in a position to offer the best technically acceptable commercial bid against strong international competition, the report concludes.

The oil and gas resources of the former Soviet Union are clearly more than just attractive speculation for Western investors. This unprecedented opportunity to initiate ground floor exploration, production, and export of new untapped petroleum resources is too good to pass up. The relative closeness of oil fields to major transport terminals and ports (with the promise of new pipelines and export terminals in the offing), affordable prices, and cheap labor make the lure of huge returns on investment all the more enticing.

Realistically, there are drawbacks. The uncertainty created by unstable political influence in these regions is a significant and real concern. The Russian energy industry is corrupt. The Caspian region is rife with unrest; Iran with its fundamental Islamism on the south, Turkey's unsolved problems with Kurdistan, the Azeri-Armenian war in Nagorno-Karabakh on the west, and Chechenian conflict on the north all are sources of concern. However, the recent history of western investment in the Middle East and Latin America

demonstrates that Western industrial giants are willing to speculate even during periods of serious conflict. Agricultural commodities such as coffee and fruit, and petroleum resources have been routinely exported from these countries during times of political unrest. The temptation of huge profit in energy has frequently served to ward off the fears of civil unrest.

2. Russia and Production Sharing

Recently the Russian Duma has hedged the adoption of "production sharing". This agreement was expected to make easier the export of profit from the country, while defining the concept of royalties in Russia for the first time since 1917.

According to industry sources, Russia's plan to sharply reduce the number of oil blocks open to production-sharing with energy investors is not a devastating blow to current Western projects, but could delay new deals.

Gennady Shalmanov, a production-sharing specialist at the Fuel and Energy Ministry, was quoted in a Reuters News Service article stating: "The State Duma is worried about the sheer number of reserves and blocks and considers that the list should be reduced."²⁶

According to Fuel and Energy Minister Yuri Shafranik, the number of oilfields open to outside investment could be slashed from around 230 to as few as 30 in response to demands from conservatives and nationalists in parliament.

²⁶Reuters News Service Russia Desk, *Russia's Plan to Cut Oil Blocks Not Death Knell*, August 2, 1996.

Shalmanov said that the six reserves targeted in already-signed production-sharing agreements, such as those off Russia's Far Eastern Sakhalin Island, would remain on the list, which must still be approved by the Duma. Three reserves in the process of negotiations with Western oil firms, as well as about 15 blocks for which licenses were awarded on a competitive basis, would also stay.²⁷

Andrei Konoplyanik, a specialist in the issue and a link between the ministry and Western oil companies operating in Russia said, "For Western oil companies, the winnowing inspires not confidence but rather disappointment,"²⁸

The attempts to curb the wave of concern the Duma has generated spawned public statements aimed at the Western oil majors. According to Peter Houlder, managing director of CentreInvest Group consultants in Moscow (a group that advises Yukos, Russia's second largest crude oil producer),

No foreign or Russian investor who has proceeded in good faith is going to be knocked off the list. But to get to the point where this law [on reserves] makes any difference, you have to have done two years of negotiating anyway.²⁹

The Russian oil tsars are using their influence and muscle to manipulate the legislators. Their efforts are designed to maintain as much control of the industry as possible and to ensure they are included in every new venture. Their goal is not to keep Western money out, but to make it difficult for the smaller Russian investor to become involved in new

²⁷Ibid.

²⁸Reuters News Service Russia Desk, *Russia's Plan to Cut Oil Blocks Not Death Knell*, August 2, 1996.

²⁹Ibid.

joint ventures.

In dealing with the question of current politics and investment in the former Soviet oil industry, it is very important to mention a recent document passed through the Russian Parliament. This is a memorandum which states that "necessary steps must be undertaken shortly to create an appropriate investment climate in Russia." Through this document, it appears that the Russian politicians are learning that Western investment is essential to the revitalization of the Russian energy industry, and to allow the big Russian oil companies to totally manipulate the joint venture industry, is not in the best interest of the Russian economy.

So, in spite of the production sharing furor, petroleum energy resources go west, feeding a European market starved for oil and gas, and providing a rosy outlook for Western investors. A recent survey in *Fortune* magazine showed that European demand for oil is currently one million barrels per day greater than the available supply. Even though some scientists think that current known world reserves are able to satisfy world demand for oil until 2010, the point for investors is in the lead time required for exploitation. Future oil prices will be based mostly upon the oil industry's ability to quickly react to constantly increasing demand. Given the political uncertainties in the Middle East and the long lead time needed to develop major oil fields in Central Asia, a significant rise in prices seems inevitable. The return on investment in active former Soviet oil fields seems promising: \$1 invested may produce as much as \$9 of profit from

oil before taxes.³⁰

In addition, it is worthwhile to mention that market puts very low value on existing oil producers in those regions. It is not because their value is not correctly assessed, but because of the different way Russians estimate resources still in the ground. As soon as financial and managerial systems are equated with those of Western producers, the difficulties in valuation that now exist, and prevent Western oil companies from increasing their investments, will abate. If there is a real effort in Russia to create an hospitable economic environment, Western oil majors will most probably proceed in their dealing with former Soviet republics and overcome the numerous barriers. Moreover, if one considers the facts that there are still vast numbers of unexplored potential fields in Russia, Azerbaijan, and Kazakhstan, with potential reserves like the ones described previously, it could be easily concluded that, in time, as the legal and economic obstacles to foreign investments in the energy industries of the New Independent States are overcome, there will be a virtual flood of Western capital into these developing economies.

³⁰Gennadiy Avrekh, *Kommersant Weekly*, May 1995.

III. THE POLITICAL AND ECONOMIC IMPLICATIONS OF RUSSIA'S COERCIVE ENERGY POLICY

A. THE ROOTS OF COERCION

Webster defines coerce as: "to force or compel to do something." Russia, during its Soviet era and in the half-decade since, has demonstrated a wide range of coercive tactics regarding energy policy toward its Soviet Republics, and now, the New Independent States (NIS).

1. Politics and Economics

In November 1993, former Vice Premier Alexander' Shokhin stated that Russia has made a concerted effort to subordinate Central Asia to its policies and openly employs economic pressure and a coercive energy policy to compel Central Asian reintegration. "Russia would use every instrument of economic policy to advance the causes of reintegration."³¹ Russia's economy is almost totally dependent upon its enormous energy resources.³² While Russia has the largest oil and gas reserves in the former Soviet Union, political and economic instability have prevented Moscow from effectively developing them in recent years. During the first five years of the new republics, energy production fell, largely due to inadequate investment and exploration, the use of outmoded technologies, the lack of spare parts, and poor maintenance. Russian oil production has

³¹Michael Specter, "Azerbaijan, Potentially Rich is Impoverished by Warfare", *The New York Times*, June 2, 1994, pp. A1, A10.

³²Oil exports alone represented 32% of total Russia's 1995 GDP.

slipped from more than 11 million barrels per day in 1988 to fewer than seven million barrels per day in 1994.³³ The dissolution of the Soviet Union and the resultant political and economic changes further limited output. Energy demand has declined because of reduced economic activity and higher prices, although energy consumption as a percent of GDP is still high.

Oil has played, and continues to play, a crucial role in the economies of former East Bloc countries. In the past, centrally planned economies relied upon abundant and easily accessible oil supplies to foster rapid industrialization, particularly of heavy industries. Between 1950 and 1989, energy production fueled an impressive economic growth rate in the Soviet Union, averaging 5.8% annually. Energy supplies increased six fold during this same period (averaging 4.7 annually).³⁴ Instead of becoming more energy efficient as they grew, however, centrally planned economies experienced higher growth rates in energy consumption than did Organization for Economic Cooperation and Development (OECD) Countries.³⁵ Heavily subsidized energy prices, the lack of market incentives, and the importance given to fulfilling quotas and achieving State plans, contributed substantially to the high energy requirements and corresponding production in the region. In recent years, the energy picture has changed somewhat.

³³John Greenwald, *The Black Gold Rush*, Special Oil Industry Report, p. 3 (henceforth referred to as Greenwald).

³⁴United Nations Economic Commission for Europe, "Energy Reforms in Central and Eastern Europe--The First Years", *ECE Series, No. 7* (New York, NY: United Nations Publications, 1991, p. 5.

³⁵*Ibid.*

According to U.S. Department of Energy statistics (Figure 3.), 1995 Russian net oil exports averaged 3.2 million barrels per day (mmb/d), down 0.1 mmb/d from 1994. After reaching 4.9 mmb/d in 1990, Russian net oil exports fell to 4.3 mmb/d. In 1991 exports stabilized in the 3.2-3.4 mmb/d range from 1992-1995 as consumption fell approximately as rapidly as production. During the past 3 years, Russian oil consumption declined from 4.3 to 2.7 mmb/d, while oil production fell from 7.9 to 6.1 mmb/d. Russian net oil exports to countries outside the former Soviet Union averaged 2.6 mmb/d in 1995, up 0.1 mmb/d from 1994, with former East Bloc countries taking 0.5 mmb/d. Net exports to the United States totaled 23,000 barrels per day in 1995, down 5,000 barrels per day from 1994.

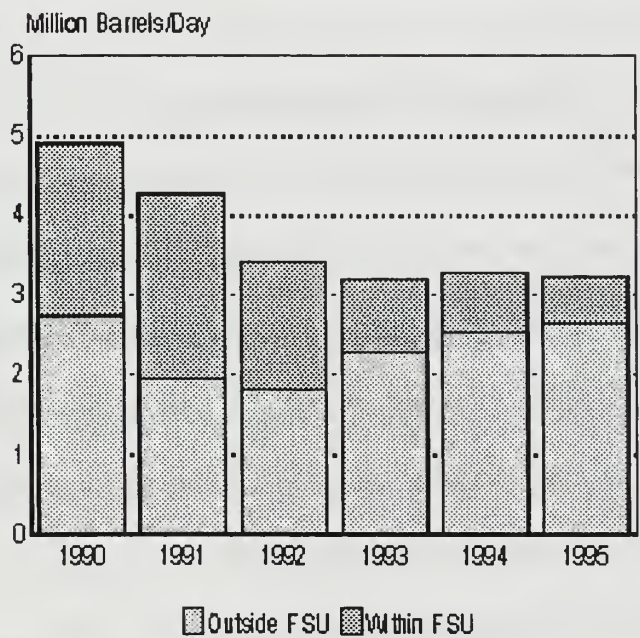


Figure 3. Russian Net Oil Exports by Destination

The share of net exports to countries outside the FSU rose from 53% in 1992 to

82% in 1995. As shown in Figure 3., there is a significant disparity in net exports over the period. As the NIS became more independent from the Russian economic sphere of influence, the percent of oil made available to them declined radically. This is due to a combination of factors. After the breakup, Russia's energy industry experienced a severe decline in production due to fiscal mismanagement, decline in exploration, and extensive maintenance problems. Moreover, with growing economic turmoil at home, it became less inclined to grant credit and/or subsidies to its former republics. Still, one can speculate that although this decline in NIS exports was couched in fiscal and economic terms, it was designed to create energy shortages and hardship among the NIS, eventually leading to some form of reintegration, or at least a compromise in the control of former Soviet energy resources.

a. Post-Soviet CIS Energy Industry

Russia has proven oil reserves of at least 50 billion barrels, although the country's actual resources may be substantially higher. Oil production in the former Soviet Union peaked at 12.5 million barrels per day (barrels per day) in 1988. However, Russian output has declined sharply since then, reaching 6.1 million barrels per day in 1995. The decline in Russian oil production appears to be leveling off, with output falling by only 5 percent in 1995, as compared to 15 percent in 1994. Oil output is expected to remain at this level for the next two years, and to rise gradually after 1997.

Increasing or at least stabilizing energy production is critical to the

economic well being of former east bloc countries. Recent energy shortages, in part due to decline in Russian exports to the NIS (Figure 3.), have constrained economic activity and slowed reform. Moreover, revenues generated by energy exports from the NIS are essential for financing reform initiatives and modernizing industries, buildings, and transportation networks. In Central Asia, the struggle to control energy resources, the pipelines through which they flow, and their refining capabilities became a high Russian priority. The coercive politics that developed out of this struggle is best understood by focusing on the history of Russia's methods to maintain control of the energy resources it controlled at the end of the Soviet era.

B. THE ACTS OF COERCION

The specifics of Russian coercive activities are varied. The acts range from veiled economic threats, to what amounts to outright war cloaked in the guise of Russian sovereignty.

1. Economic Acts of Coercion

With the decline of their energy industry,³⁶ Russia initiated what amounted to acts of economic warfare to counter independent efforts of foreign economic policy by Central Asian states, and reacted hypersensitively to any signs of Central Asian self-assertion.

³⁶After the breakup of the USSR, Russian oil production took a radical nose-dive. With the loss of oil resources in regions now considered the "near abroad," Russia's control of world wide oil production dropped from 23.44% in 1989 to 10.75% in 1994. Lowell Feld, U.S. DOE Country Analysis Brief: *The Russian Energy Industry*, U.S. Government Printing Office, Washington, DC, April 1995, p. 2 (henceforth referred to as Feld).

Russia perceived these signs as security threats, and these perceptions have led Moscow to disregard efforts toward economic reintegration based on mutual agreement and resort to coercion in order to restore a neo-colonialist relationship of dependency upon Moscow.³⁷ This coercive policy was aimed at some future reintegration based on Russia's economic and political strength.

a. The History of Coercive Energy Policy

The policy was initially instituted in 1989 through 1991 by then Soviet premier Gorbachev in an attempt to maintain the USSR solvent. He played this energy card in a futile attempt to deter Ukraine, the Baltic states, and Belarus from their republican adventures. Gorbachev routinely threatened to cut off energy supplies -- a threat he could make good on since Russia controls the pipelines and refinery capabilities.³⁸

Until 1994 Russia subsidized the CIS without any economic reward. Russia had accepted massive economic losses and diverted vital foreign trade away from the customers paying market prices in order to wield economic influence over Central Asia. The Russian plan was to maintain their position as the sole supplier of energy resources in the region, and enjoy the natural economic growth and status that came with it, while

³⁷ Stephen J. Blank, *Energy, Economics, and Security in Central Asia: Russia and its Rivals* (Carlisle Barracks, PA, USA: U.S. Army War College, Strategic Studies Institute (SSI), 1995), p. 3 (henceforth referred to as Blank).

³⁸ Jerry J. Hough, "Russia Aims its Oil Weapon," *New York Times*, June 17, 1993, Sec. A, p. 25 (henceforth referred to as Hough).

manipulating the new republics' attempts at international economic participation by using energy dependence as a key lever.³⁹

Russia maintains a proprietary attitude toward the CIS with regard to energy resources. Russia coerced Baku into granting Lukoil a ten percent share of future Caspian Sea oil finds without any investment. Russia tried to prevent Western investors, led by the British, from operating in the Caspian Sea, stating in an April 28, 1994 demarche that Russia claimed the right to veto any exploration in the Caspian Sea, and that oil projects in the Caspian "cannot be recognized" without Russian approval.⁴⁰ This document threatened numerous Western projects within the CIS and illegally asserted Russia's preemptive rights over all CIS ventures. The document made Russia's position clear and unintentionally demonstrated its frustration and desperation over the erosion of its control over the CIS.

When Chevron went into Kazakhstan, in one of the earliest joint ventures after the dissolution of the USSR, it immediately encountered problems with Russian intervention. In an attempt to torpedo the joint venture, Russia withdrew its old currency throughout the CIS, leaving many CIS countries, who relied upon the ruble, without any form of currency. This left Chevron management in the cold, and responsible for a payroll of about 3500 Kazakh workers. Chevron management was determined to meet its payroll

³⁹ Paul A. Goble, "CIS Boom Bah: The Commonwealth of Independent States and the Post Soviet Successor States," in Allen C. Lynch and Kenneth W. Thompson eds., *Soviet and Post Soviet Russia in a World of Change*, Latham MD, USA, 1994, pp. 192-193.

⁴⁰Blank, p. 5.

and sent its employees to banks throughout Kazakhstan in search of rubles. They found the cash, and spent the night before payday stuffing envelopes to ensure payment of the employees. Morley Dupre, general manager of Tengizchevroil, said, "We promised to pay them on time and we wanted to keep our promise, we've managed to do it every time since."⁴¹ Additional problems ensued when Chevron announced its plans to increase production in Kazakhstan from the thirty thousand barrels per day produced in 1993, to seven hundred thousand barrels per day by 2010. Russia restricted flow of Kazakh oil through its pipelines to the Black Sea, under the pretense that the crude contained corrosive sulfur and was potentially damaging to the already aging and limited capacity system. The Russians required Tengizchevroil to purify the crude, removing the sulfur through a costly extraction process. The additional unplanned costs caused Chevron to cut back production and curtail numerous habitability projects such as dormitories and new roads.⁴² This incident, in addition to the poor condition of the aging Russian pipelines, only served to expedite plans for new pipelines in the region.

In similar incidents throughout the CIS, Russia has used the "oil weapon" to do its will. In 1994, Russia cut off Turkmenistan gas exports to Europe. Then in an effort to ingratiate themselves to the Turkmenistan government it bought the gas supplies at below market prices. Later, Russia re-sold the same supplies to Turkey at a 300% markup. In 1994, Russia also negotiated with Turkmenistan, Iran, and Turkey to

⁴¹Greenwald, p. 3.

⁴²Greenwald, p. 3.

construct a pipeline to ship oil and gas from Turkmenistan to Europe and to build oil and gas complexes. The Russians have delayed funding and prevented the oil from flowing this year. Currently, there is no new pipeline in operation anywhere in the CIS. Russia has forced the use of the old system to maintain high use tariffs from all the former Soviet republics. In order to implement the plan, the Russian 1994 National Security Statement document urged that Russia charge CIS customers world market prices and end all subsidies.⁴³ Additionally, Russian energy experts desired to link arms sales to energy interests. In April 1994, (coincidental with Moscow's desires to ease the Iranian trade embargo) Russian Energy Minister Yuri Shafranik recommended furthering cooperation with Iran, the end result being a diminished global power base for OPEC.⁴⁴ The Russian - Iranian connection is the main threat to the equitable development of Eurasian oil. The Russian attempt to dominate the region in a de facto alliance with the radical Islamic regime in Tehran is purposefully aimed at destabilizing the region.⁴⁵ Russia benefits greatly from instability in the Caucasus, where wars and conflicts undermine independence and economic development while hindering the export of oil from the region's states.⁴⁶

⁴³ Moscow, "Russian National Security Concept for 1994," *FBIS* FBIS-SOV-94-038-5 (supplement) (Feb. 25, 1994), p. 40.

⁴⁴ *FBIS-SOV-94-076*, April 20, 1994. p. 17.

⁴⁵ Ariel Cohen, *The New "Great Game": Oil Politics In The Caucasus And Central Asia*, The Heritage Foundation, Background No. 1065, January 25, 1996 (henceforth referred to as Cohen, *The New "Great Game"*).

⁴⁶ *Ibid.*

2. Coercion Beyond Economics

Moscow has gone beyond words to establish its power in the Caucasus. The Russians are setting up military bases in the region in order to gain exclusive control over all future pipelines. Georgia now has four Russian bases and Armenia has three, while Azerbaijan is still holding out under severe pressure from Moscow. In addition, members of the Commonwealth of Independent States are required to police their borders jointly with Russian border guards, and thus are denied effective control over their own territory.

The struggle to reestablish a Russian sphere of influence in the Caucasus and Central Asia started in early 1992. While not a full-scale war, this struggle employs a broad spectrum of military, covert, diplomatic, and economic measures. The southern tier of the former Soviet Union is a zone of fervid Russian activity aimed at tightening Moscow's grip in the aftermath of the Soviet collapse. The entire southern border of Russia is a region of high instability in which metropolitan civilian and military elites, local players, and mid-level officers and bureaucrats drive the process of reintegration.⁴⁷

With the collapse of the Soviet Union, President Boris Yeltsin called for a re-examination of Russia's borders to the detriment of her neighbors, especially Ukraine and Kazakhstan. For example, upon his return from a state visit to the U.S. in September 1994, Yeltsin reiterated Russia's "right" to conduct "peacemaking" in the "near abroad," to

⁴⁷Russian Federation Presidential Edict No. 940, September 14, 1995, "On Approval of the Strategic Policy of the Russian Federation Toward CIS Member States," FBIS-SOV-95-188, Sept. 28, 1995, p. 19.

protect Russian speakers and to exercise freedom of action in its sphere of influence.⁴⁸ These statements were echoed on numerous occasions by former Russian Foreign Minister Andrey Kozyrev and other key policymakers in Moscow. In his September 1995 Decree "On Approval of the Strategic Policy of the Russian Federation Toward CIS Member States,"⁴⁹ Yeltsin outlined plans to create a CIS military and economic union. Some observers have termed this design an informal empire "on the cheap," a "sustainable empire" which is less centralized than the old Soviet Union.⁵⁰ The aim of such an arrangement would be to ensure Russia's control of the oil reserves and the associated transportation networks in Eurasia.⁵¹

Competing political interests within Russia's neighbors often prompt local elites to challenge the faction in power and to seek Moscow's support. For example, Russian oil chieftains in Kazakhstan and military commanders who are still in place in Moldova and Georgia naturally maintain close links with Moscow. Where it lacks troops on the ground, Moscow supports the most pro-Russian faction in the conflict, such as Trans-Dniestrian ethnic Russians in Moldova, the separatist Abkhazs in Georgia, warlords and former

⁴⁸Ian Bremmer & Anthony Richter, "The Perils of 'Sustainable Empire,'" *Transition*, March 15, 1995, p. 14.

⁴⁹Rossiia-SNG: nuzhdayetsia li v korrektyrovke pozitsii zapada, Sluzhba Vneshnei Razvedki Rossiyskoy Federatsii, Moskva, 1994 in: Ariel Cohen, *The New "Great Game"*.

⁵⁰Cohen, *The New "Great Game"*.

⁵¹It is estimated that through production royalties, Azerbaijan could generate over \$2 billion a year in revenue from its oil fields, while Georgia could get over \$500 million annually from transit fees. With these new-found oil riches, non-Russian republics in the region would depend less on Russia, both economically and militarily. Independent and self-sufficient former Soviet states, bolstered by their oil revenues, would deny Russia the option of establishing a de facto sphere of influence in the Caucasus and Central Asia (Cohen, *The New "Great Game"*).

communist leaders in Azerbaijan, and pro-Communist clans in Tajikistan. This is a classic scenario for imperial expansion. What is common to these conflicts is that without Russian support, the pro-Moscow factions (regardless of their ethnicity) could not have dominated their respective regions, and would be forced to seek negotiated and peaceful solutions. In each case, appeals by the legitimate governments of the Newly Independent States to restore their territorial integrity were ignored by Moscow. Russian political elites have not overcome the imperialist ideology that inspired both pre-1917 and Soviet expansionism. For today's Moscow bureaucrats and generals, as for their predecessors in St. Petersburg prior to 1917, the turbulent southern periphery is a potential source of political fortunes, promotions, and careers. For Russian politicians in search of a grand cause, re-establishing the empire and paying for it with Eurasian oil revenues is a winning proposition, especially in the murky environment in the aftermath of imperial collapse.⁵²

There are various key players in Russian coercive energy policy. These include the military establishment (including the GRU), and Foreign Intelligence Service of Russia (SVRR).

a. The Military Establishment

The Russian military and security services are by far the most resolute driving force behind the restoration of a Russian-dominated CIS. They are playing a key role in ensuring Moscow's control over the pipeline routes. The end of the Cold War and

⁵²Cohen, *The New "Great Game"*.

the collapse of the Berlin Wall terminated, at least temporarily, confrontation with the West, leaving the Red Army's General Staff, the Russian military intelligence (GRU), and the former KGB to establish control over Caucasus and Central Asian oil, establishing a Russian sphere of desperately seeking new missions. The biggest of these new missions is influence in the process.

The Russian army and security services seek to deny foreign companies the right to export oil without their control. Russian military activities over the last four years indicate an attempt to consolidate strategic control of oil sources and export routes in Eurasia. For example, the war in Chechenya blocked an important pipeline from Azerbaijan through Grozny, and the victory of the Abkhaz separatists, supported by the Russian military, further secured the Russian oil terminals in the ports of Novorossiysk and Tuapse.⁵³ In order to obtain an oil route in the region, Western exporters may be pressured to compromise with the Russian generals.⁵⁴

During its brief self-proclaimed independence under President Jokhar Dudayev from 1991 to 1994, Chechenya illegally exported crude oil and refined products worth hundreds of millions of U.S. dollars. The rebel government worked closely with corrupt politicians in Moscow to obtain export licenses. Partly to cut off this activity, Russia launched a massive but covert military action in the fall of 1994 to support

⁵³Cohen, *The New "Great Game"*.

⁵⁴Testimony of Ambassador John Maresca, U.S. Department of State, in hearing, Ethnic Violence in Transcaucasia, Commission on Security and Cooperation in Europe, 103rd Cong. 1st Sess., March 8, 1993, p. 8.

opponents of Dudayev. In 1994, Dudayev turned to radical Islamic elements in the Middle East and Central Asia for support. This exacerbated the religious aspect of the conflict between the Muslim Chechens and Christian Orthodox Russians. The overt military action began on December 12, 1994, when the Russian army marched on Grozny, one of the main goals of the Russian attack on Chechenya in December of 1994 was to ensure control of the oil pipeline which runs from Baku, via Grozny, to the Russian city of Tikhoretsk. The pipeline ends at the Russian Black Sea port of Novorossiysk, designed by Russia to be the terminal for the proposed Kazakh and Azerbaijani pipelines. In addition, Grozny boasts a large refinery with a processing capacity of 12 million tons per year.

The states of the CIS's southern tier were coerced by Russia even before they declared their independence from the USSR. Moscow incited local pro-Russian factions, such as Abkhazians in Georgia, Armenians in Karabakh, and hard-line communist pro-Russian clans in Tajikistan, to challenge the independence and territorial integrity of these pliant states. The Russian military provided advisers, hardware, training, planning, and coordination for the military activities in these areas. As a result, hundreds of thousands have been left dead, wounded, or homeless. In addition, these violent conflicts blocked the transit routes to the West for Caspian and Central Asian oil.

b. The Intelligence Services

The Russian intelligence services are also involved in coercive oil policy. The successor to the KGB's First Chief Directorate, now known as the Foreign

Intelligence Service of Russia (SVRR) and led until January 1996 by KGB general and now Foreign Minister Evgenii Primakov, published an important document in 1994 on Russia's policies in the "near abroad," called "Russia-CIS: Does the Western Position Require Correction?"⁵⁵ General Primakov's staff argued that any attempt to integrate the CIS states into the global economy without Moscow's cooperation is doomed to fail.

The Russian military and security services provide the impetus behind the restoration of a Russian-dominated CIS. They play the key role in ensuring Moscow's control over the pipeline routes. The end of the Cold War and the collapse of the Berlin Wall terminated, at least temporarily, confrontation with the West, leaving the Red Army's General Staff, the Russian military intelligence (GRU), and the former KGB desperately seeking new missions. The most visible and enthusiastically pursued of these new missions is to establish control over the Caucasus and Central Asian oil, reestablishing a Russian sphere of influence in the process.

The Russian security services seek to deny foreign companies the right to export oil without their control. Russian security activities over the last four years indicate an attempt to consolidate strategic control of oil sources and export routes in Eurasia. For example, the war in Chechenya blocked an important pipeline from Azerbaijan through Grozny, and the victory of the Abkhaz separatists, supported by the Russian military,

⁵⁵Testimony of Ambassador John Maresca, U.S. Department of State, in hearing, Ethnic Violence in Transcaucasia, Commission on Security and Cooperation in Europe, 103rd Cong. 1st Sess., March 8, 1993, p. 8.

further secured the Russian oil terminals in the ports of Novorossiysk and Tuapse. In order to obtain an oil route in the region, Western exporters may be pressured to reach accommodations with the Russian generals.

In early 1995, the Russian energy industry was faced with declining production, underinvestment, and massive state arrears that could have resulted in economic collapse without the intervention of the West. By controlling the pipelines from oil rich neighbors such as Kazakhstan and Azerbaijan, Moscow could cash in to some degree on the energy wealth of its former empire. The success of Russian coercive tactics led their economic experts to perceive a renewed dependence upon Moscow in the CIS and a desire to restore previous trade practices, especially where oil is concerned. This perceived dependence was seen as an opportunity for Russia to regain influence over Central Asia through further integration with the world economy. Additionally, since all existing transportation systems traverse Russian territory, the door is open for Russian coercion vis a vis the transport of oil resources, and detracts from Central Asian States' independence in promoting free trade abroad.

In August of 1995, Georgia's leader, Eduard Shevardnadze went to Turkey to discuss the alternatives for oil pipelines in the region with Turkish prime minister Tansu Ciller. Ciller reciprocated and visited Tbilisi three days later. The two men settled on an agreement that led Shevardnadze to support a pipeline route through Turkey instead of Russia. Five days later a car bomb exploded near Shevardnadze in an attempted

assassination. He considered the attack a direct result of the pipeline decision.⁵⁶ Russia will go to extreme measures to ensure it maintains some measure of control over its former oil resources.

3. Reunification

Russia has (at least economically) worked the reintegration miracle in the Baltics. The announcement in the spring of 1996 of a reunited Ukraine, Belarus, and Russia, and the attempt by the Russian Duma to renounce the decision to dissolve the Soviet Union were evidence of the strong undercurrent for reunification that still exists in Russia half a decade after the formation of the CIS.

On 10 July, 1996, Russian State Duma Chairman Gennadii Seleznev stated, "Now that Russian presidential elections are over, integration with Belarus should be a top priority."⁵⁷ Seleznev, who was in Minsk heading up a Duma delegation, met with Belarusian President Alyaksandr Lukashenka. He described Lukashenka as a "locomotive bringing our two countries together." The same day, Lukashenka said opposition forces in Belarus could not create "a quarrel between me and Boris Yeltsin, our Belarus and Russia." He said the opposition also would not be able to isolate Belarus from the West. A working group has been created to help synchronize economic reform between Russia and Belarus. The group should complete its work by the end of 1997. Despite the hedging by Lukashenka, there are strong possibilities that economic and military ties between the two

⁵⁶Thomas L. Friedman, *New York Times*: Editorial, September 13, 1995.

⁵⁷ITAR-TASS News Service, 10, July, 1996.

nations will strengthen.

a. Denouncement of the Belovezhskaya Pushcha Accord

Challenging the authority of President Boris Yeltsin, Parliament voted overwhelmingly on March 15, 1996 to denounce the 1991 Belovezhskaya Pushcha Accord that led to the dissolution of the Soviet Union. This resolution, however, has no legal significance since parliament lacks the power to enforce it and the President has the authority to prevent it from becoming law. The 1991 accord was originally supported by the Communist party. Mr. Yeltsin responded angrily to Parliament's action in a televised address. In it, he called on the Ambassadors from the former Soviet states to tell their leaders that the resolution was nonsense. He went on to accuse the Communists of trying to disrupt the presidential elections with this ploy. Former Soviet Republics were quick to condemn the action. Reformist deputies were also dismissive. Grigory Yavlinsky, presidential contender, agreed that the decision would have no legal effect and accused the Communists of playing on people's emotions and sense of nostalgia, stating "All this talk of red flags and national anthems does nothing to help the real process of integration." Vladimir Lukin, Chairman of the Duma International Affairs Committee said, "This will serve to alarm the West and destroy the myth of Zyuganov as a social democrat." and that while the resolution would have no internal consequences, it could serve to hurt, more than help, the Communist party leader Gennadi Zyuganov's attempts to pacify the West. However, even those who spoke against the resolution emphasized their commitment to

integration of the former Soviet States in some form. With the June presidential elections on the horizon, no speaker was prepared to defend the 1991 accords as a triumph for national self-determination.

Former President Mikhail Gorbachev, whose tenure in office was effectively brought to an end by the Belovezhskaya Pushcha accords, accused the Duma of failing to take into account the realities of the current situation stating,

It might appear that in my position, I should applaud this return to the point of my departure, as it would mean resuming my function as president of the USSR. I did not resign, but discontinued my work because of the breakup of the USSR. But to speak today about the restoration of the USSR, when the fate of the state is already decided - that is failing to face up to the new realities.

b. Reunification vis-a-vis Ethnicity and Language

Russia has further insinuated its influence over the former Soviet republics through the concept of Russian citizenry in the near abroad. The controversy still rages on, but as early as 1994, then Vice Premier Sergei Shakhrai stated that until their legal status was fixed, "[Russia] will be at the stage of a transitional period, and the methods and forms of Russian guardianship of compatriots will largely correspond to the quality of transience".⁵⁸ This policy, which implies that Russia has a unique legal responsibility for her citizens abroad, is another example of imperialist doctrine of extraterritoriality - the concept that citizens residing abroad are not subject to the laws of the country of residence, only the country from which they have come. The Russian government took the

⁵⁸FBIS-SOV-94-135, July 14, 1994, p. 10.

policy a step further by declaring that it was applicable not only to Russians, but to all Russian speaking people.⁵⁹

Russia enforces this policy with economic blackmail. In order to remain autonomous, the Central Asian states have to provide massive investment in transportation networks and infrastructure that, at this time, is beyond their economic capability. Currently, Central Asia is dealing with economic and ecological conditions that require immediate attention. and leave them dependent upon foreign investment in transportation and infrastructure. Since only oil revenues (or their prospect), can finance the required investments, without foreign interest Central Asian states will be at the mercy of Russian transport and refineries for processing of their energy resources.⁶⁰ Russia's ultimate objective is reintegration of Central Asia on Moscow's terms, mainly through economic coercion.

⁵⁹ Fiona Hill and Pamela Jewett, *Back in the USSR: Russia's Intervention in the Internal Affairs of the Former Soviet Republics and the Implications of the United States' Policy Toward Russia*, diss., Harvard, 1994 (Cambridge MA: Harvard Univ. Press, 1994), 36.(henceforth referred to as Hill and Jewett)

⁶⁰Boris Z. Rumer, *Soviet Central Asia: A Tragic experiment*, Winchester MA: Unwin Hyman, 1989; and William Fierman, ed., *Soviet Central Asia: The Failed Transformation*, Boulder CO: Westview Press, 1991.

IV. THE PIPELINE DEBATE AND PLANS

A. SOLVING THE CONVEYANCE DEBACLE

In addressing the various issues related to Russian oil policy toward its former republics, it becomes clear that one of the most significant is that of transportation of the recovered reserves to market or to refining facilities. Thus, pipelines to sea-ports and refineries become the critical link between oil and money.

Since the dissolution of the Soviet Union, Russia has used its capacity to manipulate access to crude oil transport pipelines to regulate its dispersal of oil, and the oil resources of the New Independent States to its own advantage. It has been shown how the Russian government has used the pipelines to coerce their former republics into unwanted economic and political alliances by controlling the flow of oil through their pipelines to the marketplace. The Russian government has played hard ball on too many occasions, and with the wrong people. Western oil interests, tired of the unpredictability of the Russian pipeline network, have begun to approach the problem from two exposures.

1. Russian And New Independent State Pipeline Projects

Working with the (soon to be) oil rich NIS, Western oil majors have spurred the development of agencies to fund and design, in preparation for the construction of both new main lines and connectors to the old Russian system. This has been an ongoing process for several years, but seems, finally, to have survived its growing pains, and may bear fruit in the near future.

a. *The Caspian Pipeline Consortium (CPC)*

The Caspian Pipeline Consortium Ltd. (CPC) was established on June 12, 1992 by the governments of Kazakhstan and Sultanate Oman. In July, 1993 Russia joined the Consortium. The Consortium's task is to build an oil pipeline network of some 1500 km (Figure 4.) to transport crude from the Tengiz field in western Kazakhstan, to Novorossisk, Russia. The CPC's pipeline network would also facilitate the transport of an additional 75 million tons of oil per year from the Caspian region. The network is intended to provide services adequate to satisfy all Kazakh, Russian, and Azeri demands for transportation of crude oil in the region.



Figure 4. Proposed CPC Pipeline Route

First phase construction, expected to cost \$350-400 million, will enable transportation of as much as 300,000 barrels per day of oil from the Volga-Urals region, western Siberia, western Kazakhstan, and parts of Azerbaijan. A second phase is planned

to boost system capacity to 1.24-1.5 million barrels per day, and incorporate a new pipeline from Russia. This will link up with an existing pipeline to allow an increase in Kazakhstan's Tengiz field exports. Initially, the Governments of Russia, Kazakhstan and Oman were equal shareholders in the enterprise. This original CPC agreement between the governments of Russia, Kazakhstan, and Oman had to be restructured to incorporate Western companies as a source of finance. Table 2. shows the restructured protocol signed in April 1996. It includes: Rosneft (7.5%), shareholders Chevron Corp. 15%, Mobil Corp. 7.5%, British Gas plc 2%, Agip SpA 2%, Munaigaz 1.75%, Lukoil 12.5%, the Russian government 24%, Kazakh government 19%, Omani government 7%, and Oryx Energy Co. 1.75%. ⁶¹

	Shareholder	Percentage
	Russian gvt.	24%
	Kazakh gvt.	19%
	Chevron Corp	15%
	Lukoil	12.50%
	Mobil Corp	7.50%
	Rosneft	7.50%
	Omani gvt.	7%
	British Gas plc	2%
	Agip SpA	2%
	Munaigaz	1.75%
	OryxEnergy Co.	1.75%
Total		100%

Table 2. CPC Ownership by Shares

Studies conducted by CPC and by a Washington DC based consulting firm

⁶¹Oil & Gas Journal (OGJ Newsletter), Vol. 94, Iss. 15, April 8, 1996.

PlanEcon Inc., have confirmed that by the end of 1996 the existing Russian pipeline system will be unable to handle the growing export needs of Russia, Kazakhstan, Azerbaijan and other former Soviet republics.⁶² In a protocol signed by Russia, Kazakhstan, and Oman on 11 March 1996, Russia and Kazakhstan guaranteed to ship minimum volumes of crude oil through the Phase I pipeline, assuring its financial viability. Oman agreed to provide all the equity and guaranteed the availability of financing for Phase I. The CPC Phase I pipeline system will fulfill a critical need for oil export capacity from Russia by enabling additional oil to be exported to international markets. Thus, providing a significant increase in revenue for the Russian government.

In May of 1996, ten international engineering, procurement, and construction firms were invited to submit bids for completion of CPC's Phase I facilities. After a review, in July of 1995 Chevron, as a major potential user of this developing network, agreed to proceed with detailed discussions with Willbros/Saipem and the CPC at a board meeting which was held in London. In January of 1996, the contract to build the first phase of the pipeline, from the southern Russian town of Kropotkin to a new sea terminal north of Novorossiisk on the Black Sea, went to the U.S.-Italian joint venture Willbros & Saipem.⁶³

⁶²Lowell Bezanis and Liz Fuller, Open Media Research Institute, *Caspian Pipeline Consortium Reborn*, OMRI Analytical Brief Vol. 1, No. 91, 30 April 1996 (henceforth referred to as Bezanis and Fuller -- *CPC Reborn*).

⁶³Lynnley Browning, Reuters News Service Article, Moscow, Sept 25, 1996 (henceforth referred to as Browning).

In the past several years, there has been a great deal of negotiation and speculation as to the possible export routes for oil flow to the Western market, and as of this writing, construction has not been initiated. The negotiations continue, agreements are amended, and more players included. The CPC is considering the options of routing the pipeline to the north to Russia, south to Iran, or west to Georgia, and it seems more and more likely that the first phase may involve not one but two initial export routes for the oil.⁶⁴ Recently, the CPC revised upward the amount of oil it initially plans to move once the first phase of the \$1.2 billion link is built. The CPC now hopes to transport in the initial stage up to 28 million tons a year by the end of 1997 vice the original amount of 15 million tons.⁶⁵ According to Ed Smith, general director of the CPC and a project executive at the Oman Oil Company,

We're now looking at a higher system, a higher capacity, and the risk allocation has changed, there are a multitude of issues that need to be worked out that make it a challenge to finish restructuring September 30.⁶⁶

Another Western executive at CPC said the consortium was working to restructure ownership so that U.S. companies directly or indirectly have at least a 30 percent stake to take advantage of a U.S.-Russian tax treaty reducing tax burdens. Currently the U.S. firms have just under 30 percent.⁶⁷ Further, he states, "If you look at the entire pipeline, it does force us to reconsider the entire contracting

⁶⁴Bezanis and Fuller.

⁶⁵Browning.

⁶⁶Ibid.

⁶⁷Ibid.

strategy," referring to calls by Chevron and Mobil to build the pipeline in one go instead of in stages. "It's probably appropriate to look at rebidding the job." ⁶⁸

The CPC's project to send the oil through an as yet "paper" pipeline around the Caspian Sea, across Russia and to the Black Sea, abounds with complex financing and geo-political issues.

CPC planned to begin construction this year and complete the pipeline by 2000, but industry sources say that time frame is unrealistic. "The roughest edge is the taxation and liability issue," said one source in CPC, referring to profits, local and value-added taxes. "Earlier, CPC had been considered tax exempt, but now it might have to pay taxes."⁶⁹ This is not entirely true. The "roughest edge" may be the legal aspects of ownership of the oil rights in the Caspian. There are great divergences in the interpretation of these rights among the various consortiums. The specifics of Caspian oil rights will be discussed later in the thesis.

b. The Azerbaijan International Operating Company(AIOC)

There is no oil pipeline today capable of transporting crude from Azerbaijan to the marketplace. An eleven company consortium, including five U.S. firms, has been formed to develop the Azerbaijani oil fields and build the pipeline. The problem is to successfully negotiate an agreement for the routing of the pipeline. A lot of power and a

⁶⁸Chevron and Mobil, with no way to export oil from their giant Tengizchevroil (TCO) project in Kazakhstan, are eager for the pipeline to be built, since problems in securing an export route have kept them from increasing output as planned.

⁶⁹Browning.

lot of money are riding on the answer.

At a mid-February 1996 meeting in Houston, AIOC Executive Vice President E.F. McHaffie unveiled a plan for Caspian development. In the fall of 1995, AIOC partners agreed to a \$7.95 billion development program for its Caspian Sea tract. The plan included minimum obligatory spending of \$150 million through mid-1997 to evaluate the acreage. Activity funded by the appraisal program included collecting 3D seismic data over the area, surveying the seabed, compiling baseline environmental data, analyzing an existing platform in Chirag field, and evaluating possible export routes for early production from the area. AIOC also expects to spend an additional \$350 million through mid-2000 to refurbish the Chirag platform, equip it for drilling, and drill 20 wells from the structure. With costs of past and future bonuses, operating costs in advance of first production, and general administrative expenses, total early oil phase spending could amount to as much as \$1 billion. Main development in the three fields is to occur in three phases costing \$2.1 billion, \$1.85 billion, and \$3.5 billion, respectively. AIOC estimates reserves of its Caspian Sea acreage at about 3.8 billion barrels of oil, Caspian regional reserves at 12 billion barrels, and undiscovered regional resources at another 37 billion barrels. AIOC expects production from Guneshli, Chirag, and Azeri fields to peak in 2010 at about 700,000 barrels per day. In light of the huge production potential, and the number of other projects planned (some already in production around the Caspian), the AIOC decided that the oil volumes from the region should, be great enough to warrant multiple

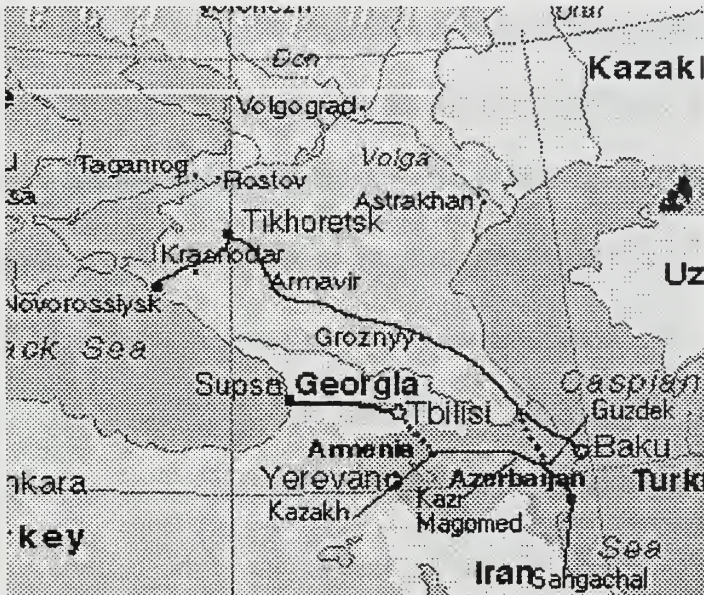
export pipelines.

In March 1996, Azerbaijan International Operating Co. (AIOC) signed a transportation agreement that will allow exports of Azeri crude oil to begin reaching world markets about mid-1997. The contract with Russia's Transneft oil pipeline company sets a tariff of \$15.67 per metric ton for shipments of AIOC oil from Azeri, Chirag, and from the southern part of Guneshli fields, about 120 miles off Azerbaijan in the Caspian Sea. While the agreement provides the AIOC with a conduit to expedite oil going out and money coming in, at the same time, it effectively serves to preserve, for the near term, Russia's position as pipeline potentate.

The agreement with Transneft will transport AIOC's crude through a 1,250 km northern route from a point near Baku by way of Tikhoretsk, Russia, to the Russian Black Sea port of Novorossiysk. The northern route main line will consist mostly of a reversed oil pipeline. On January 18, 1996, Russian and Azerbaijani officials worked out an intergovernmental agreement that established the framework under which the oil pipeline could proceed. To export oil on the agreed upon, northern route (shown in Figure 3.), AIOC plans to bring oil ashore at Sangachal, Azerbaijan, south of Baku through an existing, idle pipeline as far as Guzdek, Azerbaijan. From Guzdek, AIOC will lay a short pipeline to an existing, southbound oil pipeline between Tikhoretsk and Baku. AIOC will then reverse the crude line's flow to ship oil through Tikhoretsk to Novorossiysk.

Meantime, talks continue on the proposed western pipeline route that

would transport AIOC crude through Georgia to the Black Sea port of Supsa. To move oil on the 950 km western pipeline route (shown in Figure 5), AIOC at first would use the same pipeline to bring oil ashore at Sangachal. Crude then would move south from Sangachal to Kazi Magomed, Azerbaijan, where it would enter an existing pipeline to be shipped as far as Kazakh, Azerbaijan, near the Georgian border. AIOC would have to lay 117 km of 500 mm pipeline between Kazakh and Tblisi, Georgia, where another existing oil pipeline would carry crude about 352 km to a new oil terminal to be built at Supsa, Georgia, on the Black Sea. AIOC will rehabilitate all existing pipelines to be adapted for the western route. At least 1,100 leaks are to be repaired on the Tblisi-Supsa segment.



Proposed Pipeline-xxx Existing Pipeline- _____

Figure 5. Proposed AIOC Northern and Western Routes

Further, negotiators were also working on alternative pipeline proposals that would allow exports of Caspian oil to bypass the Black Sea altogether. These

alternate routes would avoid enlarging the number of oil shipments to the Mediterranean Sea through the increasingly environmentally, and politically sensitive Bosphorus area.

On 3 April 1996, Georgian President Eduard Shevardnadze traveled to Ankara for two-days of talks with Turkish leaders on regional conflicts and economic cooperation. One issue at the heart of these discussions was the transportation of the so-called "early oil" from the three offshore fields in the Caspian through Georgia--and raising the money necessary to do it. The concept of exporting part of Azerbaijan's Caspian oil via Georgia was first raised by Turkish President Suleyman Demirel during a brief visit to Georgia in November, 1994, and later, enthusiastically supported by US leadership as a way of undercutting Russia's economic and political influence in the Transcaucasus.⁷⁰ The US pressured both the Western members of the consortium and the Azerbaijani leadership, to exploit the "big three" Azerbaijani Caspian oil fields and to agree to export the so-called "early oil", which was due to come on stream in late 1996 or early 1997, via the two previously outlined routes -- northwards through the Russian Federation to Novorossiisk, and westwards through Tbilisi Georgia. It was anticipated that in the short-to-medium term the oil would be exported from the new terminal built at Supsa, and in the long term a new pipeline would be built to connect the Turkish Mediterranean terminal of Ceyhan.

⁷⁰Lowell Bezanis and Liz Fuller, Open Media Research Institute, *Shevardnadze's Ankara Visit Highlights Pipeline Problems*, OMRI Analytical Brief, Vol. 1, No. 56, 4 April 1996 (henceforth referred to as Lowell Bezanis and Liz Fuller *Shevardnadze's Ankara Visit*).

In March, 1996, Azerbaijan's President Heidar Aliev traveled to Tbilisi where he and Shevardnadze signed an agreement on the export of part of the "early oil" through Georgia. One key issue, however, remained unresolved, namely, who would raise the \$250 million needed for reconstruction of the existing 926 km pipeline from Baku to the Black Sea. In the January-February time frame, following talks in Washington between US and Turkish officials and a visit to Tbilisi by the president of Chevron, it appeared that Turkey would provide most of the financing (\$239 million) on a no-profit, no-loss basis, and that both US and Turkish firms would be involved in the reconstruction. Turkey's offer was, however, conditional on the Western consortium giving a firm commitment to proceed with the substantially more expensive Baku-Ceyhan pipeline (Figure 6.), which, at the time, the consortium was reevaluating the need for.⁷¹ On 4 April 1996, *Cumhuriyet* reported that Demirel had asked Shevardnadze to pressure the consortium to agree to the Baku-Ceyhan project.

⁷¹Lowell Bezanis and Liz Fuller *Shevardnadze's Ankara Visit*.

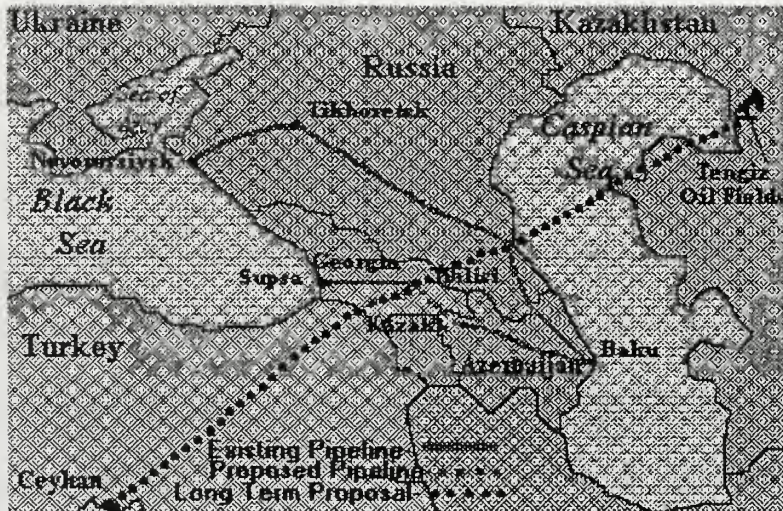


Figure 6. Turkish Pipeline Proposals: The "Northern" , "Western" and Baku - Ceyhan routes.

In September, Turkey finally agreed to finance cost of the 926 km, \$231 million pipeline. In early October, Georgia's parliament approved the project, including a \$17 per barrel tariff for the line. Turkey offered two options for financing the project. One involves Ankara granting Baku a credit of \$250 million on favorable terms passed on to AIOC for the work. The other involves Turkey setting up an international group to oversee the project. If it grants a credit line, Turkey wants a Turkish contractor or an international group with Turkish participation to handle the project, and total crude oil throughput of the system would be limited to 120,000 barrels per day. The agreed upon "northern" route, from Baku to Tikhoretsk, Russia, although considerably less expensive at \$55 million, must traverse portions of Chechenya,⁷² a risk Turkey is not anxious to underwrite.

⁷²Oil and Gas Journal, OGI Newsletter, Vol. 94, Iss. 15, April 8, 1996.

Currently, Turkey supports the Georgian route because it less risky, and is viewed as the link to a larger pipeline through Turkey that would avoid the already congested and environmentally sensitive Bosphorus Straits.

c. The Other Pipelines

The myriad of pipeline plans and the controversies they create are not limited to the large consortiums. There are adequate resources and energy concerns to interest smaller investors who seek to improve on the old Soviet pipeline systems and to expand the pipeline limited market.

(1) As a response to the Turkish/Georgian Agreements, Gazprom signed a protocol with a Greek consortium to build an oil pipeline across Bulgaria. The \$600m pipeline will transport Russian, Kazakh and possibly some Azeri oil from the Black Sea to Mediterranean. Some 350 km long, it will link the ports of Burgas, Bulgaria and Alexandroupolis in Greece (Figure 7.). Between 40-60 million tons of oil are expected to be carried annually and there will be storage facilities at both ports. Bulgaria's deputy prime minister, Doncho Konakchiev, views the project as a new concept in the transport of Caspian resources.

The new development is that we are no longer looking at the Balkan oil pipeline project as a Russia-Bulgaria-Greece oil route only, but in a wider context. [We look at it] as a project of the whole region: the Caspian Sea and the Black Sea as a united system for extraction, transportation and realization of the crude oil.⁷³

⁷³Liliana Semerdjieva, Reuters News Service (Sofia) Article, October 9, 1996.

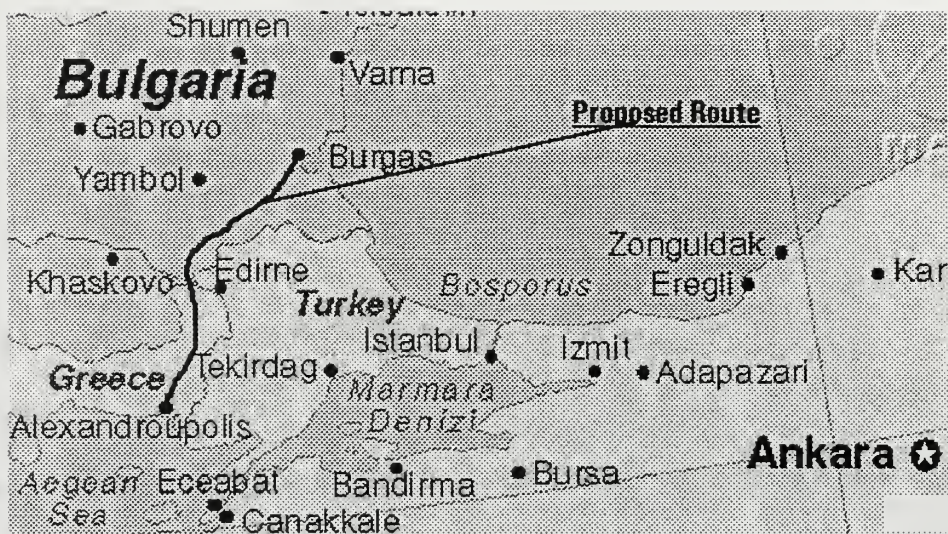


Figure 7. Proposed Russian, Bulgarian and Greek Pipeline

The Bulgarian and Greek state oil companies are expected to take a stake in the project. Pipeline problems also affected the Karachaganak development, but these have now been resolved following the signing of a Production Sharing Principles Agreement for the giant gas field by British Gas, Agip, Gazprom and the government of Kazakhstan. The partly developed field has recoverable reserves of 16 Tcf gas and 2.4 Bn barrels condensate to be produced over the next forty years, with output currently at around one million tons of condensate and one billion cubic meters of gas per year. A regular maintenance and development program has been adopted with investment over the first four years at around \$320m. The initial phase, the Production Sharing Principles Agreement (PSPA), is concentrating on halting the declining output levels and improving safety standards at the field. Plans include the drilling of gas injection wells and installation of gas injection compressors, completion for the production of existing wells, drilling of

new wells based on the reservoir study, and constructing new field pipelines. Investment of some \$8 Bn is expected to be made over an eight-year term, offset by revenue from the increased production levels. The initial PSPA, signed earlier this year, will run for two years with the option to extend for another two years.

(2) A proposed pipeline linking Siberia with the Pacific Ocean could provide Asian countries with much needed oil and help boost Russia's shaky economy. But investors are not rushing in to fund it, and it is uncertain whether it will ever be built according to SPO project coordinator Sergei Fokin.

The pipeline from Siberia to the Far East is important for Russia as it may help it get out of the current economic crisis. It is also a major boon for the dynamic economies of China, Japan and South Korea, which are the most active energy consumers in the region.⁷⁴

The proposed 2,800 mile oil pipeline (Figure 8.), is planned to connect Angarsk, near the Siberian industrial center of Irkutsk, with the Russian Far Eastern port of Nakhodka. Angarsk, is the termination point of an existing pipeline linking the Tyumen and Urals oilfields with the heart of Siberia. Oil products would be shipped to the Far East from Nakhodka.

⁷⁴Reuters News Service (Moscow), *Siberia-Pacific Pipeline Project Seeks Investors*, August 7, 1996.

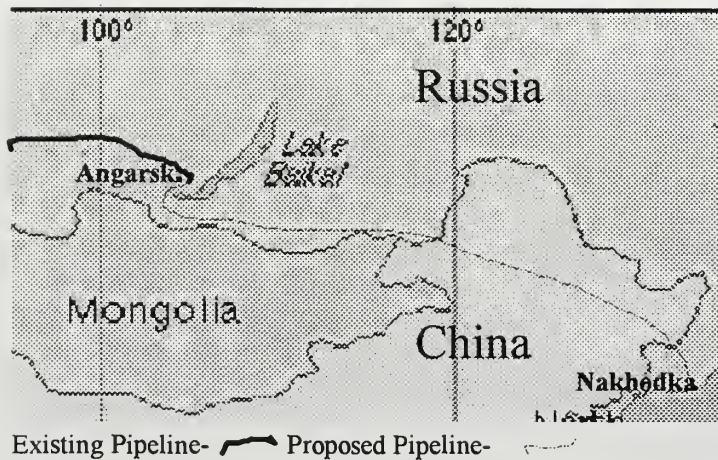


Figure 8. Proposed Siberia-Pacific Ocean Pipeline Route

The cost of the project, which could be completed by the year 2002, is estimated at \$10 to \$15 billion. Russian oil groups, such as NK Sidanko and NK YUKOS, have shown real interest in the project, and it is also being followed closely by Japan's Mitsui Industries. Private capital is needed to get the project started, and potential investors (particularly Mitsui) want Russian government guarantees. The finance ministry and Federation Council upper house of parliament are currently considering appeals to give it this official recognition.⁷⁵

(3) As territorial disputes grow over the Caspian Sea, Iran wants to become an outlet for oil exports from the promising but land locked region. At a government-sponsored conference in Tehran in December of 1995, Iranian officials said their country offers a southbound export route that is less risky and more cost effective than the westbound pipeline projects now proposed. The option of southward movement

⁷⁵Reuters News Service (Moscow), *Siberia-Pacific Pipeline Project Seeks Investors*, August 7, 1996.

of oil away from the Caspian has received little attention outside of Iran.

The U.S. government has accused Iran of supporting international terrorism and attempting to build nuclear weapons. U.S. efforts to isolate Iran make financing doubtful for any major project in the near term. Non-U.S. companies remain reluctant to make long term commitments in the country partly due to fear of alienating the U.S. government. Coincidentally, the day after the conference in Tehran, the U.S. Senate Banking Committee approved legislation that would impose sanctions on non-U.S. companies conducting significant amounts of business with Iran.

However, until Caspian Sea territorial questions are resolved, an Iranian outlet for the regions oil production may be no less likely to develop than are the other previously outlined pipeline projects. Speakers at the Tehran conference asserted that no pipeline project can proceed without the approval of Russia, which openly seeks to retain influence over former Soviet states on the Caspian Sea.⁷⁶ Although Moscow would hardly look kindly on an Iranian outlet for Caspian oil, which would involve no transit of Russian territory, it agrees with Iran on Caspian territorial issues.⁷⁷

Iran's southward export proposal for Caspian crude involves oil swaps, and Kazakhstan and Iran recently sealed an oil swapping agreement.

⁷⁶Oil and Gas Journal, *Iran Seeks to be Outlet for Caspian Sea Oil*, Vol. 94, Iss. 1, Jan. 1, 1996.

⁷⁷Both countries, as well as Turkmenistan, seek cooperative development of Caspian resources by the five coastal countries. The other countries, Azerbaijan and Kazakhstan, support a partitioning of the sea similar to the division of the North Sea into national sectors. Both of those countries have oil and gas projects in the Caspian.

Following intensive negotiations between the expert teams from oil ministries of Iran and Kazakhstan an agreement on export of Kazakhstan's oil to the international markets via Iran was inked here Saturday.⁷⁸

According to the agreement, two million tons of oil will be delivered to Iran by Kazakhstan at the Caspian Sea annually and Kazakhstan in return will receive oil at the Persian Gulf for export purposes. It is not firm as to when the deal will take effect. Iranian President Akbar Hashemi Rafsanjani and Kazakhstan's President Nursultan Nazarbayev agreed in May of 1996 to go ahead with the oil swap deal which involves laying a pipeline to carry Kazakh crude through Iran. Since then, the start of the deal has been delayed by differences over the cost of transporting the oil.

Kazakhstan, which is increasing its oil production with the help of foreign energy firms, has turned to Tehran because of limited capacity in the Russian export pipeline system. Tehran benefits from the deal by receiving a pipeline transit fee and by reducing the cost of sending oil from its southern fields to refineries in the north of the country.

As described by Iranian officials, the agreement will begin after construction of only 160 km of pipeline to connect the port of Anzali with existing pipelines in Iran. The crude would move to refineries in northern Iran. Which, with only minor changes, the plants could process Caspian crudes. Crude from southern Iranian fields, now shipped north to the refineries, would move instead to Kharg Island for export

⁷⁸Reuters News Service (Nicosia), *Kazakhstan and Iran Seal Oil Deal*, August 10, 1996.

sales on behalf of countries supplying the refineries in the north. Later, a pipeline along the eastern Caspian Sea could connect with existing crude lines in Iran (Figure 9.), flow of which would be reversed to move oil to Kharg Island.

Iranians argue that their scheme would be cheaper and require transit of fewer international boundaries than any of the other pipeline export proposals. In addition, the Iranian route via the Persian Gulf would give Caspian crude access to Asia. Mediterranean routes place Caspian crude in competition with growing volumes from several other sources including, eventually, Iraq in markets not growing as fast as those of Asia.



Figure 9. Proposed Iranian Pipeline

When posed with the question of transport of AIOC oil, even though it was excluded from the consortium, H. Ghanimi Fard, NIOC director for international affairs, said,

Iran has never said that it would not negotiate [with the AIOC] even though 40% of combine shares are held by U.S. companies. We have no problems with American companies.⁷⁹

A month after the Conference on Caspian Issues, during a three day meeting in Tehran, Iranian officials unveiled technical details of eleven projects for which they are seeking participation by foreign oil companies. Between 50 and 60 company representatives attended the November conference, according to sources present at that meeting. Although (at the request of the companies) officials have revealed little about the conference and refused to identify participants, the meeting alone is an indicator that Iran strongly wants to be a player in the Caspian black gold rush and is willing to work with both the West and Central Asian nations to achieve for itself maximum participation.

d. Caspian Territorial Disputes

As the financial and corporate issues in the exploitation of Caspian petroleum resources are slowly resolved, Russia has concentrated its efforts to obstruct the flow of NIS oil resources via international law. The political issues of the determination of the Caspian's legal status (as lake or sea), and the rights to the oil and gas deposits within its waters begin to loom larger and larger.

The long-term goals of all Caspian basin nations are very similar: to develop the infrastructure and transport capabilities of the region in order to produce large amounts of oil and natural gas for sale on the world market. The potential participants of

⁷⁹Oil and Gas Journal, *Iran Seeks to be Outlet for Caspian Sea Oil*, Vol. 94, Iss. 1, Jan. 1, 1996.

a long-term development project besides Russia, Azerbaijan, and Kazakhstan, include Turkmenistan and Iran. Together, these states control, or have the rights to control, the energy resource reserves in the region. While these nations seem to be ironing out the problems of exploitation, so far, there has been no resolution over disagreement of ownership and control of the Caspian Sea's jurisdiction and economic zones.

The official and long-held position of the Russian Federation is that, due to natural characteristics, the Caspian Sea should be considered a closed lake, and the judicial norms relating to exclusive economic zones of coastal states drawn up by the 1982 United Nations Convention on Maritime laws, are not applicable to the states bordering the Caspian.⁸⁰

According to the *Treaties on the Status of the Caspian Sea*, signed between Russia and Iran, the participating states have sovereign rights over the water up to twelve miles from their coast. The Russian view on these rules is that the Caspian Sea must become a free zone where each state that borders the sea has equal rights in developing the oil reserves.⁸¹

Since Kazakhstan was not directly involved in the Russia-Iranian agreement, Kazakhstan's Ministry of Foreign Affairs considers the treaty not binding and legally unjustified, and maintains the belief that the status of the Caspian as a sea or a

⁸⁰Dr. Aleksandr Akimov, *Oil and Gas in the Caspian Sea Region: An Overview of Cooperation and Conflict*, Institute of Oriental Studies, Russian Academy of Sciences, 1996.

⁸¹*Ibid.*

closed lake has yet to be determined.

Rasul Guliev, the Speaker of Azerbaijan's Parliament, in discussing Azerbaijan's position on the question of the legal rights for nations bordering the Caspian Sea, expressed his belief that each country with a geographical border on the Caspian Sea has complete sovereignty over its corresponding territorial sectors. According to Guliev, international law supports this position.⁸² According to Azerbaijan's constitution, the waters of the Caspian Sea that touch Azerbaijan's coast are sovereign parts of that country.

Guliev believes that, as early as the 1950s, Soviet authorities divided the Caspian Sea into sectors. This approach was apparent in the activities of both the Soviet central government and many separate ministries that were involved with Caspian activities, including energy (oil and gas), economic (fishing) and transportation. Russia and Iran divided the Caspian sea into zones in a like manner. According to Guliev, after the breakup of the Soviet Union, the leaders of the newly formed states signed an agreement recognizing the division of the Caspian sea into national sectors that were formed during the Soviet period. These new independent national sectors, correspond to the old republic sectors that existed in the USSR.

Turkmenistan's position on the Sea is similar to those of Kazakhstan and Azerbaijan. However, since Turkmenistan is more involved in the natural gas industry and

⁸²Ibid.

related infrastructure projects than in oil exploration and extraction (extracting about 65 billion cubic meters of natural gas each year from its territory as compared with only 5 million tons of oil), it is in less of a hurry to resolve the legal complications and questions surrounding its Caspian borders.

It is this confusion regarding Caspian oil rights and the controversy as to the pipeline alternatives among oil majors that have prevented the flow of new oil reserves out of the New Independent States. Russia has practiced its cunning to control the flow of natural gas and oil through the pipelines it monopolizes to muscle its way into the consortiums and to gain a substantial measure of influence in their decision making process. Moreover, since Russia has the ability to control economies of the NIS vis a vis its "oil weapon", it has strong motives to delay the decision on any new pipeline that would kill its monopoly, and severely reduce its economic and political influence in Central Asia.

V. INVOLVEMENT OF WESTERN TECHNOLOGIES AND INVESTORS

The Russian energy industry fell ill along with, or perhaps as a result of, the Soviet economic system. Production levels of the Soviet energy industry were, like most industries, based on quotas. This led to inaccurate reporting of production levels, improper maintenance, inadequate exploration, and poor handling of maturing resources. The amount of oil that has gone to waste due to water incursion alone is staggering. Soviet style saturation drilling methods, with success measured in feet drilled per day rather than total hydrocarbons discovered, have, in the revamped Russian energy industry, gone the way of Stalin's collectivization and Khrushchev's corn.

Yet mismanagement of resources hangs on. The post-Soviet political machine in Russia has, for the most part, bet its survival on the revenue obtained through the sale of military hardware and petroleum based natural resources. This desperate measure to survive what must undoubtedly be the most profound political transformation in history is slowly coming to end. Recently, with incentives provided by IMF restrictions for loan guarantees, Russia has begun a trend toward fiscal responsibility based upon privatization and free market economic principles.

A. WESTERN TECHNOLOGICAL AID

The Russian energy industry has embarked on numerous joint ventures with Western nations. Their purpose is to bring to the table the capital and technologies

necessary for revitalization of their industry and, at the same time, to maintain a strong foothold in the management of their energy resources. In the West, both capital and technology abound that can facilitate the exploration, development and exploitation of new reserves and breath new life into mature fields previously thought to be tapped out. Western oil concerns are, for the right price, more than willing to share their technologies and marketing strategies with Russia in order to bring the Russian energy industry up to (and beyond) the level of production experienced during the 1980s. It is, after all, to the advantage of the West to ensure the success of free markets and democratic rule in Russia and the New Independent States.

1. Refineries

Russian refineries currently operate at about 50% capacity (compared with more than 90% in the U.S. and 80% in western Europe). Technology exists that, if implemented, would allow Russia's refiners to increase their total crude distillation capacity by more than 500,000 barrels per day by the year 2000.⁸³ Russia's refiners face problems of low plant utilization, an unsustainable product mix, high distribution costs, and squeezed margins because of increased crude oil prices, and pollution. Russian refining margins will remain slim as long as the economy remains weak since a weak economy translates to low energy utilization rates. However, the product mix is expected to shift toward lighter products (light oils and gasoline) as Russia's economy picks up.

⁸³Oil & Gas Journal, Vol. 94, Iss. 2, January 8, 1996.

Russia has 28 refineries with an average crude distillation capacity of 200,000 barrels per day. Almost five million barrels per day of this capacity is served by a total 15,000 km of product pipelines, while more than 1.5 million barrels per day has to rely on rail, road, and water for product shipment. Delivery costs for Russian refiners are comparatively high because the average distance from refinery to market is about 1,100 km, compared with only 500 km in the U.S. In order to be cost effective, Russia must be ready to modernize its antiquated refineries. Plant expansion and conversion projects under way or on the drawing boards will lead to a total 542,000 barrels per day of added distillation capacity.⁸⁴ Implementing those projects and technologies such as vacuum distillation, catalytic cracking, hydrocracking, reforming, and hydrotreating units could boost Russia's total products capacity from the current 5.2 million barrels per day to 5.9 million barrels per day by the year 2000.⁸⁵ If only half of the improvements are implemented, Russia will see a truly significant improvement in both revenue and the environment.

2. Offshore Technology

It is estimated that well over five billion dollars will be spent on capital investment in offshore field development in the former Soviet Union by the turn of the century.⁸⁶ There are a myriad of technological and procedural issues that are unique to offshore projects. Based on their experiences in the Gulf of Mexico and the North Sea respectively,

⁸⁴Oil & Gas Journal, Vol. 94, Iss. 2, January 8, 1996.

⁸⁵Ibid.

⁸⁶Ibid.

U.S., British, and Norwegian investors have the clear advantage in this market. Moreover, the North Sea and surrounding offshore areas have been proving grounds for technologies and practices able to slash exploration, development, and production costs. New seismic and drilling technologies; a move toward floating production facilities and away from more-costly fixed systems; use of subsea completions tied back to existing platforms; alliances between operators and contractors and streamlined organizations and procedures have all been proven and are available for export to Russia and the NIS.

a. Single Point Moor Technology

SPM (single point moor) technology is to be introduced by the Willbros Company in the new export location north of Navrossisk will significantly increase the amount of crude exported to refining facilities. The performance of SPM systems is superior to older jetty-based loading systems in virtually every respect, including environmental impact, reliability and weather tolerance. In addition, SPM technology eliminates the requirement for a protected harbor. This state of the art mooring and cargo transfer system cuts down in port time for shipping, and will allow for a significant increase in the amount of Central Asian crude exported.

b. Offshore Oil Rigs

It is becoming clear that the vast majority of untapped reserves in Russia and the NIS are concentrated offshore -- some in significantly deep water areas. Suppliers of the required rigs, including platforms and drilling equipment are in step to satisfy the

long range logistical requirements. The Sea of Okhotsk, and the Barents, Caspian, and Black Seas are all active project sites, and the equipment needed for these projects is highly specialized. In preparation for the projects in the former Soviet Union, the Western offshore drilling industry has been improving itself steadily for the past year. Four trends are driving the market worldwide:

- Technology is steadily lowering the cost of finding and producing oil and gas.
- Energy prices are high enough to stimulate drilling yet low enough to stimulate consumption.
- Some governments have lowered taxes on energy producers to attract investment.
- The return on project investment in the FSR will be realized well into the next century.

In combination, these trends have expanded the market for deepwater drilling services beyond the available supply of rigs and daily rig rates and are rising toward levels required to justify building new rigs.⁸⁷

There is comparatively little offshore technology and experience in the FSU and this fact has led their project coordinators to the established experts in the area. Companies in the UK, Canada, Norway and the U.S. are all ready to provide their equipment and consulting services. Some of the new construction projects include:

- Eight mobile rigs are currently under construction. Gazprom will own and operate two 300 foot independent leg cantilever jack ups in the Black Sea. They will be delivered in mid-1997 and mid-1998, respectively. The Kvaerner & Zvezdochka-designed rigs will cost \$100 million each.

⁸⁷*Oil & Gas Journal*, Vol. 94, Iss. 36, Category: News, Subcategory: Exploration, Sept. 2, 1996.

- Rowan Cos. Inc. will take delivery of a LeTourneau 150-88-C 400-ft jack up in May 1998. Rowan is constructing the \$170 million heavy duty jack up, the Rowan-Gorilla 5, on speculation.
- In the Caspian, the AIOC plans to upgrade some existing platforms, and some new ones will be constructed at Baku's fabrication yards in the Azeri capital. The structures will be simple and lightweight in design. Since the Caspian Sea is shallow and the weather is comparatively benign there is no requirement to duplicate the expensive, heavier duty, North Sea typical installations.⁸⁸
- Three semisubmersibles are under construction. Caspmor (Russia) will own and operate the Shelf VII, an F&G Enhanced Pacesetter design for 1,000 ft of water, and the Shelf IX, a CD&BE Coral design for 820 ft of water. Each rig has an estimated cost of \$80 million, and no delivery date has been announced.
- Deepsea ASA will take delivery of the Deepsea Stavanger, a Bingo 8000 design for 6,500 ft of water, in February 1998. The rig has an estimated cost of \$210 million and is available.
- Falcon Drilling is building a dynamically positioned drillship, the Peregrine IV. Falcon plans to complete the drillship, which would be capable of drilling in 9,200 ft of water, by December 1997.
- In June 1998, Sonat Offshore will take delivery of a dynamically positioned drillship for drilling in 7,000 ft of water. The Discoverer Enterprise, an Aframax Tanker design, has an estimated cost of \$245 million and should receive a day rate of \$180,000. The rig construction is supported by a 3-year contract with Amoco Production Co.⁸⁹

While not all of the cited examples are project specific and some are speculative, they are all targeted at the increasing demand for offshore drilling technology and representative of the technologies that offshore projects in the former Soviet Union depend upon.

⁸⁸Mark Thomas, *Euroil*, "Breaking Into Baku", Vol. 6 Iss. 9, May, 1995.

⁸⁹*Oil & Gas Journal*, Vol. 94, Iss. 36, Category: News, Subcategory: Exploration, Sept. 2, 1996.

c. *3D Survey Technology*

Exploration in the deep water environment has been made significantly easier with the evolution of seismic 3D sonar and surveying systems and ROVs. The ability to reliably locate the underwater geological formations common to petroleum deposits expeditiously not only serves to reduce expenses incurred during exploration, but it also leads investors to gain confidence in speculative projects. Earlier this year, an Exxon Corporation affiliate began acquiring state-of-the-art 3D seismic data in the Sea of Okhotsk off northern Sakhalin Island in far eastern Russia. Exxon Neftegas Ltd., operator for the Sakhalin I Consortium, said the multi-million dollar seismic work is the first part of a \$200-300 million resource appraisal program that is required to better define estimates of reserves. The acquisition, covering nearly 350 square miles, is scheduled to run into October. The Sakhalin I area is comprised of three offshore fields, Chayvo, Odoptu, and Arkutun-Dagi. The seismic data is being acquired this year is for Arkutun-Dagi field. Similar surveys will be run over Chayvo and Odoptu fields in the future. Acquisition began less than 45 days after the Sakhalin I production sharing agreement took effect on June 10, and has progressed with positive results which significantly expedited the timetable for initial drilling.⁹⁰ The same 3D technology has been successfully used to map out the vast deposits in both the Caspian and the Barents.

⁹⁰*Oil & Gas Journal*, July 29, 1996, p. 58.

d. Other Western Technologies

There are numerous other technologies that are routinely utilized in the West that are just now being introduced to the former Soviet oil industry.

- Horizontal drilling techniques -- now a standard and economic technology -- are to be used to rework many wells in what were thought to be tapped out fields in Russia. Additionally, horizontal drilling is likely to be used to improve production from the reservoirs. Existing vertical wells on the Guneshli field, for example, have produced, according to one project source, at 400 bbl a day, whereas horizontal wells are expected to boost this figure to around the 4-5,000 barrel per day mark.
- Oil shale. Russia plans to complete installation this year of its first waste free hard oil shale processing plant with a \$1.05 million credit from a German bank. Tatoilgas, a venture of Tatarstan's Tatneft and German combine Mineraloel-Rostoff-Handel, expects to process 48 cu meters per day of shale with an estimated 5% yield of shale oil. The venture was established in 1989 initially to process one million metric tons of crude oil tank bottom sludge and recover marketable oil. About 600,000 tons of sludge in Tatarstan was processed, yielding 250,000 tons of oil. The shale processing technology was tested in a pilot plant in Germany in 1995. Methods such as new drilling techniques and more extensive gas and water injection projects all can reduce costs and reap significantly larger numbers of reserves over the life of a well.

All the above technologies and many others are typical of the expertise the West is able to bring to Russia and the NIS. The implication is not that there is no useful home grown technology, or that the former Soviet oil industry is not capable of developing new technologies for themselves. The fact is that there are technologies available for use today that in time can be improved upon when the industry is again fiscally sound. The financing for such research and development is available.

B. JOINT VENTURES - THE BEST OF BOTH WORLDS

The number of joint ventures with foreign companies and foreign firms operating in Russia reached 14,600 in 1995, a 31% increase since 1994. Of that number, 2,611 joint ventures were set up by U.S. companies and 1,971 by German firms. Companies from China and Ukraine founded 1,376 and 1,341 joint ventures, respectively. In 1995, joint ventures' industrial output totaled 44 trillion rubles (\$9.7 billion), of which goods worth \$5.8 billion--mostly fuel--were exported. Joint ventures accounted for 7% of Russia's total exports and 6% of total imports.⁹¹ As of July 1996, there were 164 oil and gas joint ventures (Figure 10.). This number includes both operational and contractual joint ventures between foreign oil companies and the various states of the former Soviet Union. These joint ventures cover all aspects of the oil and gas industry, including production, refining, transportation, and oilfield services; however, they exclude the manufacture of oilfield equipment.

⁹¹Open Media Research Institutes, *OMRI Daily Digest*, April 1, 1996.



Source: United States DOE Energy Information Administration

Figure 10. Joint Ventures in the Former Soviet Union

1. Joint Venture Production

Of the aforementioned 164 ventures, 56 are operating, with the rest having signed contracts or protocols of intent. More than 60 percent of these are in Russia, with the majority of the remaining in Kazakhstan and Azerbaijan. The 106 joint ventures in Russia produced about 400,000 barrels of oil per day in 1995, up from the 300,000 barrels/day of 1994.⁹² The overall share of oil production accounted for by joint ventures rose from 4.6 percent in 1994 to 6.6 percent in 1995. About 60 percent of the oil produced from joint ventures in 1995 was exported, the rest was sold to Russia for domestic use.

Joint ventures in Russia currently producing 20,000 barrels per day or more include: White Nights (Anglo-Suisse), Polar Lights (Conoco), Vakh Fracmaster and Yuganskmaster (Fracmaster), and Vanyoganneft (Occidental). All of these joint ventures

⁹²U.S. DOE-Energy Information Administration (EIA) Analysis Report, *Oil and Gas Joint Ventures in the Former Soviet Union*.

are located in the West Siberia Basin except for Polar Lights, which is located in the Timan Pechora Region. Most of the successful joint ventures in the former Soviet Union are smaller operations that focus on reworking old fields with new technology from the West to increase or revive production.

The majority of the production from the other joint ventures comes from Kazakhstan, with 1995 joint venture production of 58,000 barrels per day. The joint ventures account for 14 percent of Kazakhstan's production. This total is up from the 1994 production level of 42,000 barrels per day, equal to 10 percent of total production. Almost all (51,000 barrels per day) of the production can be attributed to Chevron's Tengizchevroil joint venture at Tengiz, which has the largest oil production of any joint venture in the former Soviet Union.⁹³

Large joint ventures in terms of planned future oil production include: Chevron's Tengizchevroil (\$20 billion planned investment and 750,000 barrel per day potential by 2010); the Azerbaijan International Oil Consortium (AIOC) of Amoco and others (\$7 billion planned capital investment and 800,000 barrel per day production by 2008); Bitech's joint venture in Irkutsk (\$5 billion planned investment); Conoco's Polar Lights joint venture (\$3 billion planned investment); and the various joint ventures planned for Sakhalin Island. However, there is no guarantee that these joint ventures will come on line as planned.

⁹³U.S. DOE-Energy Information Administration (EIA) Analysis Report, *Oil and Gas Joint Ventures in the Former Soviet Union*.

2. Joint Venture Distribution

Overall, joint ventures are distributed disproportionately throughout the former Soviet Union (see Figure 9.). Although Russia accounts for 86 percent of the oil produced in the former Soviet Union and almost the same proportion of natural gas, only 64 percent of the joint ventures are located there. The situation is mirrored in the other republics. Kazakhstan, for example, produces about seven percent of the oil and less than one percent of the natural gas in the former Soviet Union, but accounts for 13 percent of the joint ventures. Azerbaijan, with three percent of the oil production and one percent of the natural gas production in these countries, accounts for nine percent of the joint ventures.

The lack of success from joint ventures in Russia reflect the difficulties associated with conducting business in an economy in transition. Joint ventures have been frustrated in Russia by export taxes (and high and uncertain taxes in general), the lack of a stable economic, legal, and political framework conducive to business, and the difficulty in gaining access to the pipeline network for getting oil out of Russia. With the rising oil prices in Russia, joint ventures are beginning to lean toward the domestic Russian market for sales to avoid the export tax and pipeline access issues.⁹⁴

Joint ventures such as Sakhalin Island on the Pacific Coast of far East Russia continue to attract interest because the oil can be exported via tankers, and does not need

⁹⁴U.S. DOE-Energy Information Administration (EIA) Analysis Report, *Oil and Gas Joint Ventures in the Former Soviet Union*.

to travel through the Russian pipeline network.

3. JV Success in the NIS

Joint ventures in the NIS are more successful because their business climate has been perceived as more favorable to joint ventures than Russia's, and because the neglected projects left in place by Soviet planners are easier to adapt to new technologies. However, joint ventures in these republics have also been hurt by the lack of pipeline access to markets. According to the Russian Ministry of Energy and Transneft, capacities of the current oil and gas pipelines are not large enough to supply the NIS and Russia at the same time. So they have instituted (demanded) excessive tariffs to "compensate" for Russia's downtime. Additionally, the sheer volume potential of the non-Russian republics make new export pipelines necessary in order to effectively exploit the large ventures in Azerbaijan and the Central Asian republics. Moreover under the old Soviet, Moscowcentric system, all of the oil and gas from the non-Russian republics had to pass through Russia first, and only then were connections to export pipelines to other countries available -- another example of the total control that Russia had over the former Soviet Republics' energy resources.

U.S. companies are currently involved in 75 joint ventures, or slightly less than half of the total. American companies accounted for about half of the joint ventures (54 out of 106) in Russia, but only a little more than a third (21 out of 58) in the other republics. U.S. companies account for smaller proportions of the joint ventures in Azerbaijan (4 out

of 13), Kazakhstan (7 out of 22), and Turkmenistan (1 out of 4).⁹⁵

C. U.S. GOVERNMENT PROJECTS AND INFLUENCE

The United States government has realized that it is in their best interest to ensure the outcome of Russia's economic transition. To shape the direction of growth in a truly dismal economic climate, the U.S. government has taken some initiatives to kick start the Russian economy and to gain a huge measure of influence into revision of Russian tax laws, the infamous Production Sharing Agreement, and in general the operation of the Russian energy industry.

1. U.S. Attempts to Influence the Russian Energy Industry

In 1996, the U.S. Trade & Development Agency awarded four grants to help industrial and infrastructure improvement projects in Russia.

a. Research Grants

The grants provided \$300,000 toward a feasibility study Lockheed Martin Corp. and Perry Technologies will develop on use of underwater robotic equipment to work on oil and gas projects in the Barents and Pechora seas.

Smith International Inc., received \$150,000 in funding to conduct a feasibility study of a joint venture to produce drill bits for use in the Russian Federations oil and gas industries. The Engineering Academy of Russia - Volga Department proposes

⁹⁵U.S. DOE-Energy Information Administration (EIA) Analysis Report, *Oil and Gas Joint Ventures in the Former Soviet Union*.

to team up with Smith International to manufacture, market, and sell roller cone and shear bits for the Russian market.

Sovlink Corp, New York, will receive a \$200,000 grant to study requirements for medium term leasing of oil and gas equipment throughout the Russian Federation. Tokobank will work with Sovlink to design a joint venture.

ABB Lummus Global, will conduct a feasibility study of modernization of a refinery southeast of Moscow that could result in about \$300 million in U.S. exports. Included will be a plan to improve environmental performance of the plant, as well as a market analysis for refined products and design and cost of modernization. The Moscow Refinery will receive the grant of \$150,000 for the study.⁹⁶

The grants offered by the TDA are relatively small and are more a token of good will to provide an inroad to the real objective.

b. The U.S. Line of Credit

In July 1996, The Gore-Chernomyrdin Commission's Energy Policy Committee announced that major U.S. financial organizations are willing to provide Russia with an eight billion dollar credit to develop the fuel and energy sector. Despite the positive political jargon exchanged regarding the marvelous achievements of the Russian Duma on reworking the PSA (which acts as a major obstacle to U.S. investment), U.S. officials made it clear that the opening of a U.S. credit line to Russia is being held up by

⁹⁶Oil & Gas Journal, Vol. 94, Iss. 1, Jan. 1, 1996.

flaws in accounting, taxation, and business legislation. Russian Fuel and Energy Minister Yurii Shafranik optimistically predicts that by the year 2000 Russian fuel and energy companies will receive some \$12 billion worth of U.S. investment.

In developing a special commission at the Vice Presidential level to deal with issues regarding U.S. interests in the Russian energy sector, the U.S. is sending an overt message that it wants to be a major player in resurrecting the ailing industry. Russia must understand that the U.S. will expect to have a great measure of influence in decisions regarding Russian foreign investment litigation and policy.

If Russia is willing to allow U.S. intervention in the management of the industry, it will expedite the economic recovery of the nation, and along with Russia's now complete privatization effort, rebuild the Russian economy and provide a strong, free market influence in the global energy market.

This is a great deal to ask of a nation who, less than a decade ago, was totally at odds with the U.S. both politically and economically. Eight billion dollars, and a near term solution to Russia's money problems is a lot to offer, but the jury is still out in Russia as to whether they are ready to sell their energy industry to the U.S.

VI. CONCLUSION

Throughout the text of this thesis, there has been a prominent underlying theme -- Russia's persistent efforts to stifle the free market development of the energy industries of the former Soviet Union. These efforts have run the political and economic gamut, from the manipulation of its pipeline system to force participation in energy consortiums in its former territories, to confounding its own Western energy partners through its nebulous and restrictive taxation system and PSA legislation, to outright military action.

The health of these nascent economies depends upon the proper development of their energy resources. The revenues gained through the proper exploitation of oil and gas can, if invested properly, propel the former Soviet republics into the twenty-first century as high income economies.

It is crucial that the United States takes the lead in demonstrating that it is in Russia's own interest to allow the uninhibited exploitation and marketing of these energy resources. This will be a challenge since Russia (except during the current transition) has no recent history of free market economics, and it will take some time for them to catch on. Russia needs to understand that there is plenty of opportunity for marketing energy resources -- enough for every nation in the region -- and that it need not be involved (either economically or politically) in every regional venture simply because, at one time, these resources were under its control.

Russia has not shown an ability to properly manage its own energy industry let

alone those of the near abroad. Recent energy shortages, spawned by lack of capital in Russia, reached crisis proportions in mid-July of 1996. In Primorskii Krai, in Russia's Far East, many homes and enterprises were without electricity for long periods. Lack of fuel oil forced power plants to operate at considerably reduced capacity, resulting in interruptions in power supplies to various vital installations, including the alarm system on the Russian-Chinese border and an air traffic control center. On 16 July the area's most powerful electric power station was producing only 30 megawatts of power, compared with its usual output of 1,400 megawatts. Some hospitals were cut off for several hours. Industrial enterprises, street cars, and trolley buses stood idle, and many homes were without power for up to 16 hours a day. The local power company is owed vast sums by consumers, and cannot afford to purchase fuel oil or coal. This cash flow problem, however, is not limited to local economies.

According to Fuel and Energy Deputy Minister Anatolii Kozyrev, the industry's debt to the 1995 consolidated budget was 26 trillion rubles (\$5.7 billion), compared with the 65 trillion rubles transferred to the budget that year.⁹⁷ This was largely due to customers' non-payments to fuel and energy companies, which reached 105 trillion rubles in 1995. The sector itself owes more than 127 trillion rubles to other industries. Kozyrev also noted that because of non-payments by customers, fuel and energy companies lost 15 trillion rubles in profits over the year. As a result, 24% of the enterprises in the sector

⁹⁷Open Media Research Institute, *OMRI Daily Digest*, 16 April 1996.

were run with losses totaling more than two trillion rubles (\$ 4.4 million).⁹⁸

This is just one symptom of Russian mismanagement. The real problem is in lack of capital. A report for the Security Council prepared by the government's Financial Academy concludes that the shortage of capital in Russia is a threat to national security, and that Russia needs \$150 billion to restart economic growth. However, the report states that this investment capital cannot be generated either domestically or through foreign investment.⁹⁹ Russian economists miss the point when claiming the capital cannot be raised.

The capital is there, but Russia has put up barriers to prevent Western investment. Investment obstacles include the deplorable Production Sharing Agreement law. In spite of the exciting investment opportunities for Western energy concerns, Russia must refine its PSA law before foreign oil and gas companies will significantly boost upstream spending. The biggest barrier to investing in upstream oil and gas ventures in Russia is lack of a clear, stable legal framework. Western oil and gas companies have voiced dissatisfaction with the PSA law to the highest levels of Russian government.¹⁰⁰ Their major concerns about Russia's PSA law include:

- Resolving conflicts between the PSA law and Russia's Underground Resources law.
- Adding a waiver for sovereign immunity.

⁹⁸Ibid.

⁹⁹Open Media Research Institute, *OMRI Daily Digest*, 16 April 1996.

¹⁰⁰Oil & Gas Journal, *Offshore Accent Predicted for C.I.S. Projects*, Vol. 94, Iss. 25, 17 June, 1996.

- Guaranteeing that the Russian government will not unilaterally alter oil and gas PSAs because of changed circumstances.
- Allowing foreign partners in PSAs the unambiguous right to export their shares of production.
- Interpreting the PSA through internationally accepted legal principles.
- Assuring stable tax treatment for all parties to a PSA.

Another barrier to upstream oil and gas investment in the most promising CIS oil and gas regions is the issue of boundary disputes in the Caspian area. Given the area's long history of territorial conflicts.

Conflict jeopardizing potential oil pipeline routes is occurring in Nagorno-Karabakh, a small, largely Armenian enclave inside Azerbaijan. Karabakh is located on the potential oil route from the Caspian Sea to Turkey. Strife between the mainly Christian Armenians and Shi'a Muslim Azerbaijanis erupted into war in 1992. The Armenians continue to strive for complete independence for Karabakh or its absorption into Armenia.

Another potential area of conflict is in Abkhazia, an area of civil unrest and civil war in Georgia. The war in Abkhazia, began in 1992 and has claimed over 35,000 lives. It was started when the Russian military backed the Abkhaz separatist minority against the Georgian government in Tbilisi.

One purpose of Russian intervention was to weaken Georgia and lessen Turkish and Western influence in the region (the more important reason was the Russian desire to maintain control of, and access to, oil). Thus, Russia gained de facto control over the Black Sea coastline in Abkhazia which provides access to the Russian Black Sea ports of

Novorossiysk and Tuapse, and a nearer proximity to the Georgian oil exporting ports in Poti, Supsa, and Batumi.

To protect their investments, and reduce political risk in the Caspian region, Western companies can secure their financial commitments with local government guarantees of secure export routes from the area.

The U.S. has national security interests in ensuring the fair and prudent exploitation of the oil resources of the former Soviet Union. Access to Eurasian energy reserves could reduce America's dependence on Middle East oil and ensure lower oil and gas prices for decades to come. Moreover, it needs to ensure that Russia does not become dependent upon its growing arms sales industry as a primary source of income.

The income from the exploitation of these extraordinary energy reserves can provide Russia and the NIS with the financial resolve to rebuild their dilapidated infrastructures, retool their industries, and institute badly needed social programs. Thus leading to greater stability in the region.

The success of all these transitioning economies is dependent on oil and gas. The United States is renowned for its statebuilding capability. America should try to preserve the independence and economic viability of the newly independent states by working to ensure that Azerbaijan, Kazakhstan, Georgia, and others receive a fair share of oil revenues from the region. The U.S. should ensure that Russia is not a dominant, but rather an equal partner in the development of these oil resources. The U.S. has the influence and

the ability to control the path the Russians take -- either toward or away from the success of free market economics. It is essential that we guide them correctly.

It is the right of the Russian oil industry to participate in the development of the resources within its borders. It is a matter of business and economics as to whether it should participate in the development of resources elsewhere. After nearly a decade since the fall of the Soviet regime, it is time the Russians realized that they are a vanquished adversary -- the losers in the cold war --, and like any other defeated empire, they must resign themselves to the loss of territory and loss of the rights to the natural resources in that territory.

This is not a condemnation, nor a boast of triumph for the West. It is just a truth. Further, the results of the cold war have had significant positive implications. The West has, as it did post W.W.II, welcomed post Soviet Russia as a great power in both the political and economic arenas. It has provided huge amounts of economic aid and opened previously closed technologies to its former adversary. The West has embarked on a new Marshal Plan aimed at integrating the former Soviet Union into the free market. Russia should realize that it has a unique opportunity to grow at the rate of a third world country with the prestige and experience of a first worlder. Russia -- rebuild! Take the assistance offered by the West in good faith, and grow. The tools are available and whether to let energy resources expeditiously build a new life for the people of the former Soviet Union is a choice the Russians must make. However it is the responsibility of the United States to

ensure that they do make the right choice.

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